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# THEATRICAL SCENE PAINTING

A THOROUGH AND COMPLETE WORK  
ON HOW TO SKETCH, PAINT AND  
INSTALL THEATRICAL SCENERY



*ILLUSTRATED*

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BOOK

# PREFACE



FOR SEVERAL YEARS past there has been an ever increasing demand for Theatrical Scenery and artistic Window Backgrounds, and oftentimes the sign painter or pictorial artist has an opportunity to do scenic painting for the local theater or moving picture show, but, as he has little or no previous experience along these lines and no reference work to refer to, he generally turns down the opportunity in favor of the man with the special training. To meet this demand we have undertaken to place before the public a moderately priced work on Theatrical Scene Painting, also suitable for Window Backgrounds, that for all purposes will be found a great help to the beginner as well as to the person with some knowledge of Scene Painting.

The Scenic Painter oftentimes is requested to furnish sample drawings or sketches of the work to be performed, and to familiarize the beginner with the most essential rules of correct drawing, which necessarily must be known by all scenic artists, we have included, in this work, several chapters on pencil drawing, elementary perspective, pencil sketching, crayon drawing, water color painting, pen drawing and wash drawing, in addition to the painting of scenery in oil, all of which are very instructive and necessary, as no scenic painting, no matter how elaborately executed in colors, can correct the faulty drawing of the scene depicted.

The demand for artistic scenic paintings for window backgrounds is becoming greater every year. All progressive stores now use them for holiday displays and for different seasons, and as in the other lines of advertising the art of displaying merchandise has made great progress, and a well executed scenic background materially helps the merchant or store keeper to dispose of his goods to the public. Another field, unknown to scene painting up to a few years ago, is the moving picture shows, which are being erected even in the smallest towns. Nearly every one of these shows require the services of a scenic painter, either for distemper work in interior decoration, or to equip same with a set of scenery for vaudeville performances. Still another field open to the scenic painter is the work in the better class of private residences, public buildings, schools and churches, which in late years have commenced to use, more and more scenic decorations and distemper work.

To the young man with some artistic talent we should strongly recommend this profitable and lucrative profession, as it has been illustrated in many instances that a person who is possessed of some particular talent only needs the opportunity to demonstrate his ability in order to succeed and the knowledge of scenic painting often is the stepping stone to a great artistic career.



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# CHAPTER ONE

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## STRAIGHT OUTLINES

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**D**RAWING is the backbone of all scenic painting. Learn to draw well before you try to paint, design, illustrate or do any other artistic work. To be able to draw is to be able to give a correct pictorial impression of things that you see. Drawing, therefore, educates the eye and the hand and is to the scenic artist what scales and exercises are to the musician—the necessary foundation for all good technique.

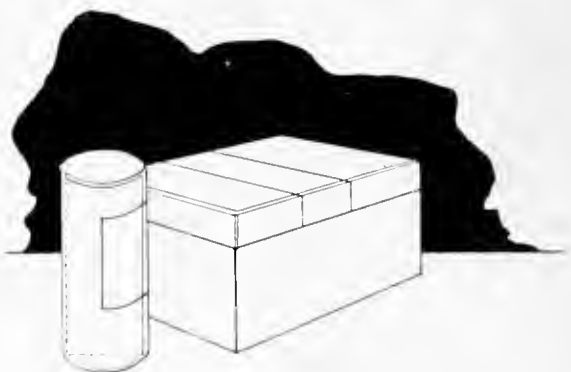
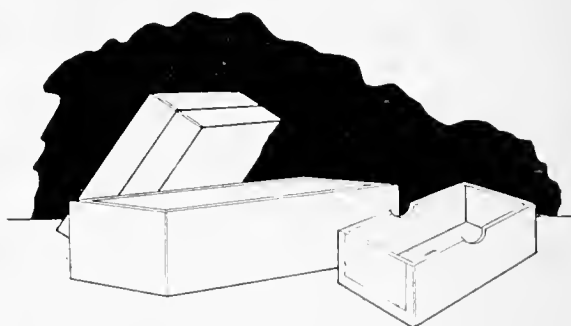
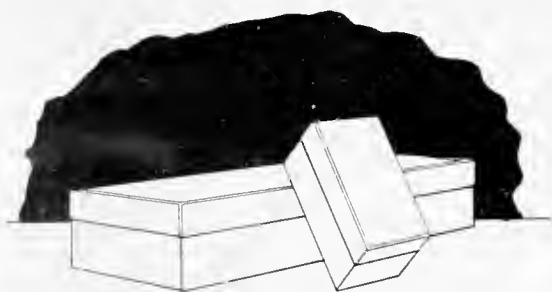
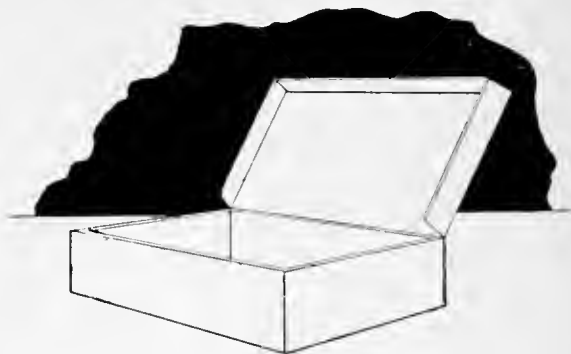
The materials that are needed for preliminary sketching consist of the following articles, which can be had at any of the larger art stores or painters' supply houses:

- |                                 |                                       |
|---------------------------------|---------------------------------------|
| 1 Drawing Board.                | 1 Dozen Sheets Good Drawing Paper, or |
| 2 Dozen Sticks French Charcoal. | Cartridge Paper (Wall Paper). (Any    |
| 1 Soft Pencil Eraser (No. 40).  | paper with a somewhat rough surface   |
| Art Gum.                        | may be used.)                         |
| 1 Lead Pencil, Koh-i-Noor 2-H.  | 6 Thumb Tacks.                        |
| 1 Lead Pencil, Koh-i-Noor 2-B.  | 1 Soft Cloth Rag.                     |

For your first attempt at sketching from objects, select something with simple, straight outlines, a plain box, for instance (Fig. 1, Plate 1), place it in a good light, hang something dark behind it for a background; put a few sheets of some paper on your drawing board, fasten a quarter sheet of your drawing paper with thumb tacks on top of this, sharpen your charcoal to a point (a piece of sandpaper is good for this) and repeat this when point becomes broad and dull, in fact, always keep charcoal, pencils and crayons well sharpened with good long points; sit down about 6 to 8 feet away from object, having light coming from your left side; put drawing board in your lap and rest top of board against back of a chair, be sure that you have an unobstructed view of your object; now look well at box and try to remember general outlines of same.

Then draw with quick, light strokes the main outlines of box. Sit well back in chair, hold drawing board away from you and compare the outlines and proportions of your picture with those of box. You may then observe that the box you have drawn is either too long, or short, or broad, or

# PLATE 1.





crooked, or otherwise out of proportion with the object. Now try to correct your errors. Wipe first drawing partly out with a soft cheese cloth rag, redraw lines that were correct and alter those that were wrong, then compare drawing again with object and proceed to further correct until you have got a true picture in outline of box. Then wipe partly out, redraw outlines nicely with pencil 2-11; place new sheet of paper on board, give box a different position and try another drawing of it. Repeat until you have several drawings of different views of box.

For your next lesson use two boxes placed at different angles to each other (Fig. 2, Plate I). Proceed as before, making several charcoal studies of different positions of boxes, finish with pencil.

For third lesson, place a bottle in front of box and make a drawing of the combination (Fig. 3, Illustration I). When sketching the curves at top and bottom of bottle just indicate with straight lines in first sketches; when these are corrected draw in curves. For further practice place bottle and box in six different positions and draw six sketches as before.

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## **DRAWING OF OBJECTS HAVING CURVED LINES.**

The pupil having made a considerable number of drawings from objects with straight outlines should now begin to sketch from objects having curved outlines and try to master the intricacies of their forms and shapes.

For our first attempt we will take an ordinary quart bottle and place it against some plain background and in a light that will show up the outlines of the object strongly and clearly against the background. Having fixed our paper and taken a position, as previously explained, we will now proceed to make a rough charcoal sketch of the outlines of the bottle.

First draw a straight, vertical line down through middle of paper, using a ruler; then hold out charcoal at arm's length, parallel with an imaginary straight line, running down middle of object. Close one eye, as when sighting a gun, and starting at top of bottle observe how many times you can divide piece of charcoal protruding above your finger, into the length of bottle. Put down as many equal distances on the vertical line on your paper, taking care to have them small enough, so as to leave a generous margin at top and bottom of bottle; then measure, as before, width of bottle, being careful to hold charcoal horizontally, protruding from

fingers, as before, and at arm's length and measure how many times this length of charcoal divides into width of bottle, then set off these divisions on either side of vertical line, and if drawn correctly you now have height and width of bottle in the right dimensions. Now draw two straight outlines, parallel with vertical line, for the sides of bottle. Then measure width at top of neck, also length of this and draw outlines of same, first as straight lines and then curved, as in model; finally draw curved lines from neck to sides of bottle, being careful that both sides are perfectly alike. Try to obtain true ovals at top and bottom of bottle. Sit back in chair and give your outline sketch a final critical look, correcting any errors in dimensions and outline; then wipe out charcoal lines partly, and proceed to redraw outlines with a hard, well pointed lead pencil, correcting all errors as you go along. Do not redraw helping lines, shown dotted in Fig. 1, Illustration 2. Make all outlines of bottle turned to the light, with a light touch and all outlines in the shade with a heavy, broad touch. For your next attempt lay down the bottle and make a sketch of it in this position. Make in all six different sketches of bottle in different positions.

Having mastered the simple outlines of a plain bottle we shall now select a simple vase of some kind for our next model. The same rules laid down for drawing the bottle will hold good in this problem. Fig. 2, Illustration 2, will show that a few more helping or "blocking in" lines are required than in the former drawing, but they are obtained in exactly the same way, as when drawing bottle. The particular vase selected need not be an exact replica of the one illustrated in Fig. 2, but should be plain and simple of outline. Make three drawings of vase in three different positions and three more drawings of vase and bottle together in different positions.

For your next problem select a plain cup and saucer for a model, using same methods of sketching as indicated above. Figure 3, Illustration 2, will give an idea of the "blocking in" required before curved outlines are drawn. Be sure of getting a good shape to the handle. Make a few more drawings of cup and saucer in different positions and several drawings of bottle, vase, cup and saucer grouped together in different positions.

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## FURNITURE DRAWING IN OUTLINE.

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Before starting to sketch in outline from models, you should spend several hours drawing free-hand ovals. Make all kinds of ovals, some

almost like a circle, others more compressed and oblong, but all of them with true curved outlines without flat places or uneven bumps. Always remember that an oval is a circle seen in perspective and that it must not be egg-shaped, but both ends should have precisely the same curvature.

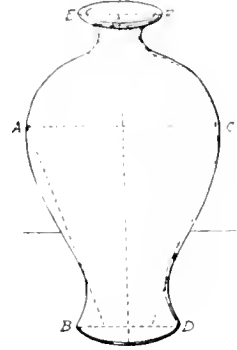
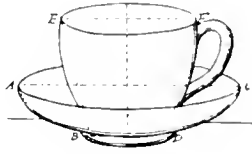
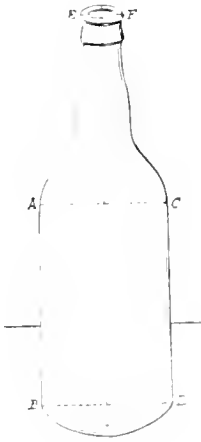
The outline sketches from simple objects made in former lessons should have educated your hand and eye to such an extent that you now will be able to make creditable sketches in outline from plain furniture.

For your first attempt at this kind of work select as a model a plain chair, preferably one of mission design. Place this chair about nine feet away from you in a good light and against some plain, quiet background. Fix your paper, as usual, and draw a vertical line where you want farthest side of chair to come. On this line measure off height of back and mark where seat will strike it, draw a horizontal line through this point and measure off length of seat in true proportion to the rest. Now proceed to draw nearest side of back, noting what angle the outlines have to your pencil held out perfectly vertical in front of your eye and at arm's length. Give outline of back in your drawing same angle to vertical line already drawn; then notice how width of chair corresponds to height and when this is found proceed to draw farthest side of back, parallel with nearest one, but slightly shorter; then draw front legs in a similar way. If looking carefully at the subject you will notice that all lines receding from you, if extended, would meet in a point, directly in front of your eye. This point is called the "perspective vanishing point" for all such lines and will shift with your eye, which, therefore, should be kept, as nearly as possible, in the same position while looking at model.

After having made one charcoal sketch, as correct in proportion as it is possible for you to draw, wipe it partly out and finish it nicely, going over all the lines with a well-pointed, medium hard lead pencil, correcting all possible errors and lack of proper details as you go along. Use a heavy, broad outline for all shaded sides. For further practice place same chair, or choose others, not too complicated, in six different positions and make a drawing of each different view.

For your next model use a plain library or kitchen table. First draw a vertical line where you want left front leg of table to come; on this line set off height, then at right angle with vertical line draw a horizontal line for farthest edge of table top; then set off height of table on this line, draw right front leg parallel with left one, measure off width of table and draw a line for farther edge of table parallel with the nearer edge already drawn. Then mark off your table ends, sides and lowest points of farthest legs in their true perspective foreshortening, add all remaining details and

# PLATE 2.



HORIZONTAL LINE

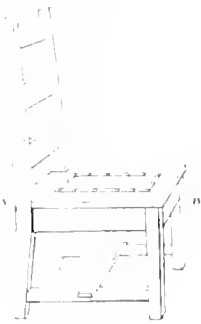


FIG. I

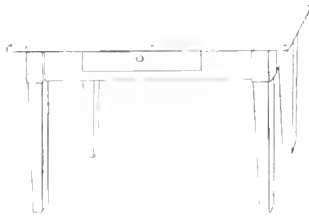


FIG. II



FIG. III

FIG. I

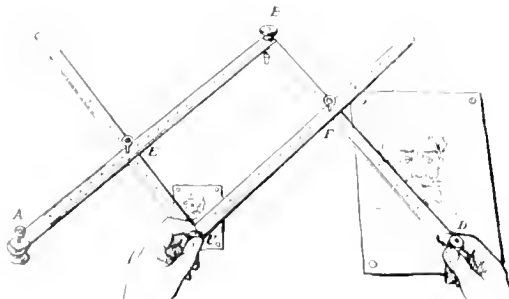


FIG. II



FIG. III

finish charcoal sketch. Redraw with pencil, as before, and for further practice make a few more drawings of plain tables in different positions.

For your next model select a simple, plain chiffonnier or wash stand and make several drawings of it in different positions, using same methods of sketching as described above. In some of your sketches pull out drawers more or less and draw chiffonnier that way.

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## COPYING AND ENLARGING.

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There are several methods of enlarging drawings and cuts by mechanical means and we shall briefly explain a few of these methods of mechanical enlarging.

An instrument, often used by draughtsmen to correctly enlarge the outlines of small drawings or engravings is called a pantograph. This instrument consists of four narrow strips of wood or, in the better grades, of metal. These strips are furnished with thumb-screws that can be inserted in any of the many holes in the strips, and thus secure these at shorter or greater distance from each other, according to the size of the enlargement desired. The pantograph is fastened to the table with a screw at "A" (Fig. 1, Plate 3). The object to be enlarged is secured with thumbtacks under the point at "C." The numbers are at holes on strips where screws "E" and "F" should be placed in order to obtain the desired enlargement of small cut. Be sure that screws are placed at same number on all four strips. Fasten a large sheet of paper under pencil point at "D"; grasp head of screw "C" with left hand and that of screw "D" with right hand, then start point at "C", moving it slowly and carefully over the lines of small cut, at the same time guiding pencil over the large sheet of paper. If carefully done the result will be a correctly drawn, enlarged outline of small picture. Always be careful about having screws in pantograph tight, so to avoid wobbling and side motion, and at the same time, not so tight, as to hinder the free motion of the four strips.

A pantograph can be obtained at most art stores or painters supply houses and it does not pay to buy the cheapest kind, as they do not work very accurately.

After having obtained your pantograph you should select a small picture of a simple design, place same under pantograph and make an enlarged outline drawing of it, as explained above; when complete go lightly

over the outlines with a soft pencil eraser and rub them partly out and after this operation go over them again with a sharp, medium hard pencil and correct all deviations from the true outline. Having thus, obtained a nearly perfect enlarged drawing it would be a good plan to go, once more, over the lines, trying still further to make them perfect, this time using a pen and making the lines with liquid India ink (Higgins black drawing ink preferred). Now rub pencil lines out, and lay aside; make several enlargements, in a similar way, as described above, but select a harder and more intricate picture every time.

Another mechanical method of obtaining an enlarged outline of a small picture consists of dividing the small picture in a certain number of squares and then draw the same amount of squares, only larger, on a sheet of paper and then sketch the outline, or rather as much of the outline, as appears in one of the small squares, in the corresponding larger square, thus obtaining a correct enlargement of the entire outline, when all the larger squares have been filled with their sectional part of the enlarged outline.

For your first trial at this method select a small picture of a simple design and outline and divide it up in small squares, say about one-eighth of an inch; then on a piece of smooth drawing paper lay out the same number of squares as found on small picture, but this time making each square larger, say about one-half inch. Be sure to have all squares true and of equal size; then number them, as indicated in Fig. 2, Plate 3, and commence to draw outline in first large square in same proportion as it appears in corresponding small square. Repeat this process in the other squares, until a complete outline of small picture is secured; then correct all errors and go over outlines with pen and ink and, finally, rub out pencil lines and squares. Make several outline drawings, following this method but select a more difficult picture to enlarge every time.

The fewer squares that you make on small picture the larger part of the complete outline you will have to draw in each of the enlarged squares and the more difficult, but, also, more instructive the problem will become, and for your last and hardest part select some plain pictures and divide them into four squares in the enlargement. Make several enlarged outline sketches from different small pictures, using the above described four squares.

Before starting on next chapter devote a little of your spare time in sketching objects and furniture from nature; this forms a splendid exercise and greatly educates the eye to see correctly and the hand to draw correctly

what is seen. Make your first attempts at simple composition, placing several objects or pieces of furniture together so they make pleasing and artistic groups and make sketches of these groups, being particularly careful to get the perspective foreshortenings of the lines and planes correctly rendered in your sketches.

## CHAPTER TWO

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### SHADING.

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HAVING become familiar with the sketching of objects in outline, you are now prepared to take up the more difficult and intricate study of light and shade and to still further educate the hand and eye while learning to see values, as well as form and outline.

Let us take an ordinary hen's egg and place it on a large sheet of white paper against a background of white cardboard or cloth. Have the source of light come from the left and be sure that the object receives all of its light from one window only or from one artificial light, if you are drawing after dark. In this way all "cross lights" will be avoided and the problem of light and shade made simpler and less intricate. The light striking an object at an angle of 45 degrees will be found the most satisfactory. Before we start to sketch the object let us look it over carefully. We first observe the general oval shape of the egg and then notice that the portion of the egg farthest from the light is darker than that portion nearest to the light. We also see a darkened part of the paper to the right of the egg, caused by the egg coming between the light and the paper.

The lighter portion of the egg we call "light," the darker "shade" and the dark portion on the paper "shadow." Further analysis of the "light" will show us that this is subdivided into a lighter and darker region; the lighter we call "high light" or "halftone." We also see that the "shade" is composed of a lighter part called "half shade" or "reflection" and a darker called "fullshade." The "shadow" is also deepest nearest the object, which part is called "full shade," and has a lighter part towards the edges, which is called "half shadow."

If we now desire to determine the strength or "values" of the different shaded regions we can compare the blackest shadow with something entirely black, as for instance, a piece of black velvet held in the shade, and we will observe that the full shadow of our object appears considerably lighter than we first imagined, and when we come to shade on our



drawing we must bear this in mind, so we can draw the object in the right "key" or tone and not get the shadows and shades too solid black or the lights too chalky white, which would give the whole picture a hard and unpleasant appearance.

We are now prepared to draw a shaded picture of the egg before us. Place a sheet of good drawing paper with a somewhat roughened surface on your drawing board and proceed to sketch in the object, as previously explained. Redraw outlines clear and distinct with a hard lead pencil, then select a softer one, for instance, No. BB or BBB, and proceed to lay in an even gray shade for the background of the picture, holding the pencil well slanting and using more the side than the end of the point, which should be rather blunt. Be sure to get the background as even and smooth as possible. Next take another good look at the egg and study well the distribution of light and shade on the curved surface, then give it a light, smooth shading all over, except in the highlights that should be left white; then work in the darker part of the shade with a heavier shading, leaving the halftone near the white and the reflection near the shadow, as they have already been shaded. Now draw the shadow that the egg throws on paper, and be sure to get this very dark in the middle and in under the egg and lighter and softer out towards the edges, which should blend softly with the even, light gray shade that you should lay all over the foreground up to where it touches the background.

Place egg in five different positions and have the light strike it in five different ways and make five more sketches of the same object, proceeding, each time, as described above.

For your next problem select a tomato, potato, apple or other fruit or vegetable and draw six shaded sketches of same in different light and positions. This time the background behind the object should not be pure white but should have some tint to it and should be shaded a little heavier than in the first six sketches.

For the last problem use an ordinary, simple bottle for your object. This time curve the cardboard, used as a background for bottle, into a half circle. You will now observe that the side of the background that is nearest to the source of light is the darkest and that this darkness gradually blends into the lighter side, opposite. You will also notice that high lights on bottle are a great deal sharper and clearer defined than those on former objects, that there are several of them, also a great many reflections and half lights; this is found in all objects with a smooth, shiny surface and makes the drawing of such objects a great deal harder than those of simple objects first selected.

Make two shaded sketches of bottle alone, using great care in getting correct shading of curved background and high lights and reflections in bottle. Next make two shaded sketches of bottle and egg together and finally two drawings of bottle, egg and fruit together, changing position and grouping each time.

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## SHADED DRAPERIES.

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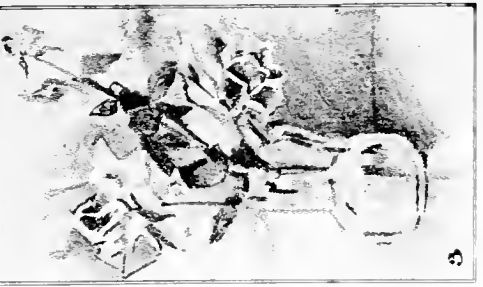
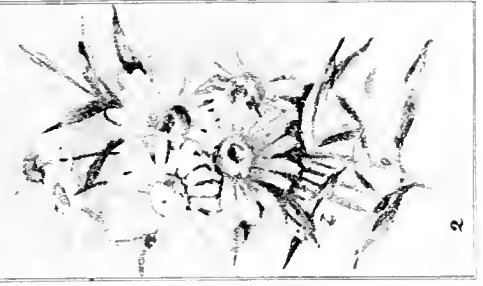
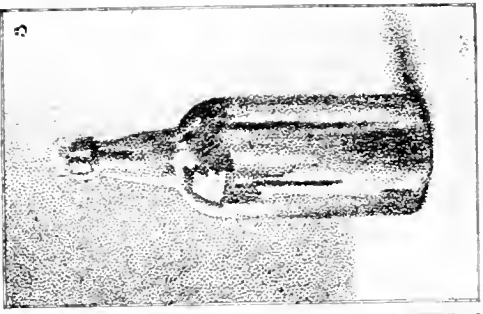
We shall now proceed one step further in our studies of shading and this time turn our attention to the play of light, shade and reflections on fabrics and cloth hung in folds and drapes. It is an easier task to draw draperies that are subjected to a strong side light and thus will show prominent highlights and strong, well defined shades and shadows, than it is to draw and shade the delicate, soft tints that draperies show when hung in diffused or direct light. In making drawings, described in this lesson, you should, therefore, place the draperies that you are sketching so that they receive the light from one side only. For your models select pieces of goods not smaller than one yard square, larger are much to be preferred.

For your first problem select some woolen or cotton material of a neutral shade, for instance, a plain, gray blanket. Hang this, either by rings suspended on a wire or draped over a curtain pole so that it falls in straight, even folds.

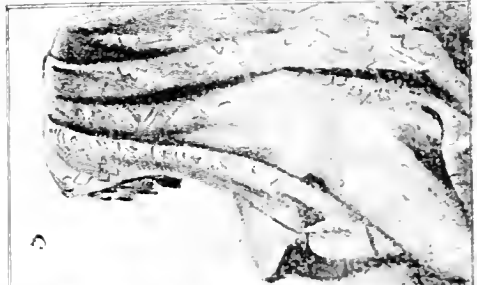
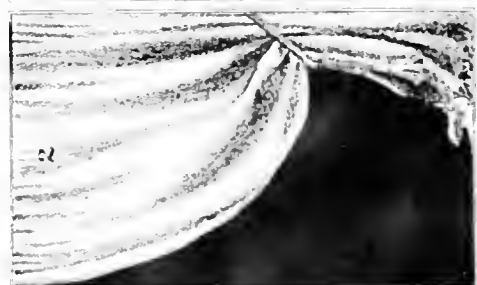
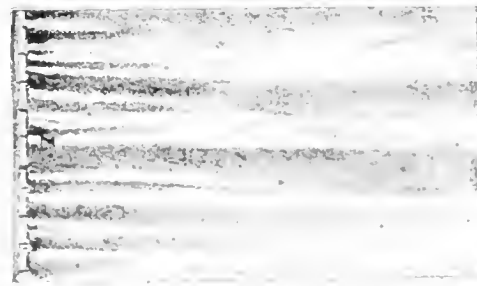
Now put a piece of good quality drawing paper on your board, sit down in front of drapery, so far away from same that you can overlook all of your model in one glance, and proceed to sketch in the outline and general directions on the most conspicuous folds in same, making a drawing not smaller than 7x9 or 8x10 inches and enclose same in a square frame, formed of two parallel lines, as indicated in illustrations. After having obtained the outlines of the folds wipe out charcoal lines partially and proceed to put in the heaviest shades and shadows of the folds, using a soft lead pencil for this, and avoiding all hard and sharp outlines. From the shadows go to the half shades, now using a lighter touch and a finer stroke of the pencil and finally draw the lightest tints that lead up to the high lights, which, also, should have a very faint shading and not be left sharp and pure white, unless the piece of goods you are sketching is made of silk or satin. In woolen and soft cotton goods all of the shades should

# PLATE 3.

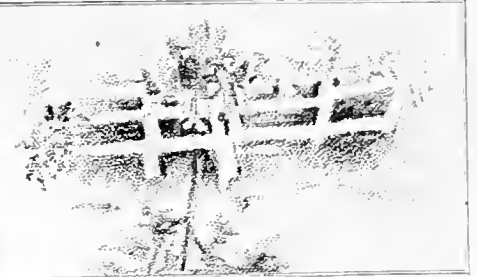
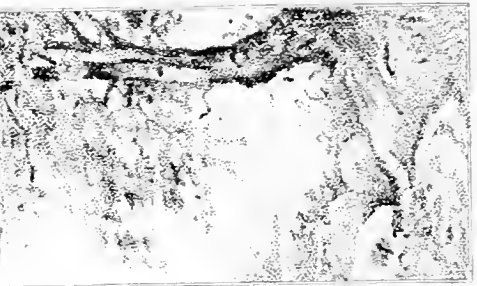
1. SHADED OBJECTS



2. SHADED DRAPERIES



4. SHADED TREES AND FOREGROUNDS





blend nicely into each other, so as to render the soft texture of the goods correctly. Keep on making sketches from this model until you obtain one that is as nearly correct in every detail as it is possible for you to make.

For your next problem drape blanket over back of a chair, having some of it fall on the floor, then draw and shade as directed before.

You will find that the shadows and folds now are more uneven than before and you must use great care in obtaining the correct drawing of the folds in your preparatory charcoal sketch. For the next two sketches drape blanket over front of chair, changing arrangement of folds each time. For last two sketches from this model place blanket over front of an arm-chair or rocker and press goods slightly down over seat between arms. You will now observe that many of the folds and shadows indicate the form of the chair below blanket and it is now your job to draw the folds and shade them so that the finished picture will show plainly that the blanket has been draped over an arm chair. Change position of chair in each of these two sketches.

For your next model choose a plain portiere or curtain (not a lace curtain). Hang this up so the light strikes it from one side. Drape it nicely, using a heavy cord with tassels to tie it up with. Sketch and shade the draped curtain as before. Change position and folds of this curtain six times, drawing each time a new shaded sketch.

For our last problem we will select some figured material, as, for instance, a Turkish couch cover. Drape this over the back of a chair, showing part of this in drawing and draw as before. Make six sketches in all, each time draping the couch cover in a different way on a different piece of furniture.

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## SHADED DRAWINGS OF FLOWERS AND PLANTS.

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The practice in shading that you have obtained through studying the problems given in the two previous lessons should have accustomed you to observe the fine and delicate shades and halftones and the strong and vigorous shadows thrown by objects exposed to light, coming from one direction, and should have enabled you to make a correct and well finished pencil sketch of this play of light and shade on a given object, and all this acquired knowledge of form and value will help you a great deal when you start to make shaded sketches of leaves, plants and flowers. The methods used in

making the drawings, described in this lesson are the same as previously explained. First select your models, then place them in front of, or tied to some even background, formed of a piece of cardboard or plain cloth. Then obtain a good grade of drawing paper, make a preparatory sketch, not less than 5x7 inches (better if larger) using a pointed piece of drawing charcoal, wipe out partially, and redraw outlines, using a hard, well-pointed lead pencil. Commence shading, using a very soft (BB or BBB) pencil, and beginning with the heaviest shades and shadows, following up with the half lights and ending with the highlights, which on light objects will appear white and should be left unshaded.

If you are practicing during the summer you will have no difficulty in finding your models in the garden or the fields; during the winter you will have to make your choice from among the house plants or obtain the required flowers at a florist's.

For our first problem we must select some leaves of simple outline, as for instance, rose leaves, maple leaves, oak leaves or the like. Arrange a small bunch of these leaves, left on their stems and branches, against a white or light colored plain background. You may have to tie them up for this purpose and you should spread them out well so you nowhere leave any too dense clusters of leaves, as these are rather difficult to draw and shade correctly. Now proceed to "block in" your drawing, using a pointed piece of drawing charcoal for this preliminary work, and touching the paper very lightly, so as to leave only a faint outline that will rub out easily without dirtying the paper. Draw the main lines first, obtaining the correct angles of the main branches, then block in your leaves, omitting all details, and only sketching the main features of the outlines and the middle rib. After you have finished the first rough sketch of the whole cluster sit well back in chair, holding your sketch away from you and scrutinize the sketch and the model and discover where the proportions and outlines are wrong. Wipe out the charcoal lines partly, and proceed to correct in second sketch. Keep this up, comparing with model, and redraw until you have obtained a final sketch which is correct in proportions as well as outlines.

After the preparatory charcoal sketch has been perfected, wipe almost out and redraw all outlines with a lead pencil, this time putting in all of the lesser details. When the final outline sketch is finished and satisfies your judgment, proceed to lay in the darkest shades and shadows, using a very soft (2B or 3B) lead pencil. From the deepest shades go to the half tints, using a lighter touch, as you work up to the highlights, which, if they are very strong and marked, should be left white. This shading of the delicate and broken tints and reflections of a bunch of leaves is a harder

task than you have undertaken, so far, and it is possible that your first attempt may not be as successful as you had anticipated. Do not let this discourage you. Start all over again and keep this up until at last you are able to make a perfect drawing, satisfactory in every detail, and rearrange leaves so they make a different cluster and proceed to draw another picture; then rearrange again and draw a third sketch from the same leaves. Now obtain a bunch of some different leaves, having an outline a little more difficult to draw than those you just discarded. Make three sketches of these leaves in different positions, then bunch your two kinds of leaves together and make three different sketches of this new bunch.

For the second problem select for your model a bunch of some large, plain flowers, as for instance, roses, daisies, peonies, dahlias, lillies or the like, but do not at first group more than three or four of them in a bunch. Arrange them artistically against a light colored, plain background and proceed to sketch, outline and shade as before, taking great care in making your preparatory sketch so as to get a correct drawing of the flowers. If the flowers are white or light colored the background should be shaded lightly where the light flowers come up against it. Make three different sketches of the first bunch of flowers, rearranging them every time. Then select a smaller flower, which is a little harder to draw, and make three different sketches.

For the third problem select a nice vase, bowl or crock and arrange the flowers in one of those, making three different sketches of flowers and receptacle. Next select a house plant in flowerpot or jardiniere and make three drawings, selecting a different plant each time. Keep up this study of flowers and plants until you have obtained a set of perfect and well executed drawings and you are not able to make further improvements on them.

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## SHADED DRAWINGS OF TREES AND FOREGROUNDS.

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The experience gained in making shaded pencil drawings of leaves, plants and flowers will help you a great deal when you come to sketch branches, trunks and trees from nature. This lesson is the first one that takes you out in the open and, before you are through, we propose to open your eyes to see all the beauties of form and color that abound so plentifully in the great outdoors. If you are practicing when the leaves

are off the trees you will have a fine opportunity of studying the structural formation of trees, their branches, twigs and trunks and later on in the early spring you will be able to secure fine studies of budding bushes and blossoming fruit trees. In the summer and fall there will be plenty of good models of trees with great masses of dense foliage. The evergreen you can study to advantage all the year round, and these you must not neglect as they form fine models to study from.

For out-door sketching you should provide yourself with a sketch book, having leaves of a good grade white or cream colored, unruled paper, and small enough to slip in a coat pocket. Take along a pen knife, a soft pencil, a rubber and two lead pencils, a hard one for outlining and a very soft one for shading, also a soft pencil eraser (sponge rubber) that should only be used when absolutely necessary.

Begin your observations with studying trunks of large trees and observe carefully the general outlines and different textures of the most common species of our forest trees, as the sturdy oak, the elm, the chestnut, the maple, the birch, the elder, etc.

For your first model select a trunk of a large tree that grows rather straight and does not have its branches too near the ground. Stand at a distance of from 10 to 20 feet away from it and commence to make a very light outline of its main features, blocking it in with straight outlines first, and omitting all small details and fine curves in the preparatory sketch. Do not draw branches, foliage or surrounding landscape in your first sketch of trees, but confine yourself to obtain a good and correct drawing of the trunk alone. You should, however, draw some of the foreground immediately surrounding the trunk and also the top of the large roots, if these show above ground, otherwise the tree will look as if it floated in mid-air.

After having completed one shaded sketch of the trunk, walk to a different place and draw another view of the same trunk, shading the sketches very carefully and defining the light and shade on the trunk and all the ridges and uneven spots on same with bold, heavy strokes of a soft pencil.

For your next sketch draw the trunk of another tree, this time including some of the branches in the sketch. Also try to find a trunk of a tree fallen to the ground or lying over a brook; make sketches of this, also of stump if this is still standing.

For the next problem select a good sized tree, standing all alone and make a shaded sketch of entire tree, but be sure to obtain a correct outline



of the crown of the tree and draw the foliage in masses, omitting too many details. Leave a well-defined distinction between the light and the shaded parts in your sketch and draw foliage with bold lines, using broad sweeps of a very blunt, pointed pencil. Now start shading in the places that appear darkest in tree before you, then go to the lighter and finally to the high lights, which should be shaded very lightly. Be sure to obtain a correct representation of the different textures of the trunk, the branches and the foliage. This may seem hard to begin with, but will become much easier as you become more experienced in expressing just what you want, with different strokes of your pencil. Also try to retain the individuality of the tree that you are drawing, so your sketches, for instance, of cottonwood do not look like those of oak or maple. Make in all six different sketches of six different trees, selecting evergreen, if you are practicing in the winter time. After having gained sufficient experience in sketching single trees, you may select picturesque groups of several of them for your models. In your latter sketches you can, also, indicate the surrounding landscape in faint outlines, but you should confine your shading to the trees alone.

For your last problem select some simple objects that will make a good model of an easy foreground study, as, for instance, an old fence, a wheelbarrow, a few large rocks, an old shanty, or the like. Take a ramble out in the woods of the country with your sketch book in the pocket and your eyes open to the beauties of nature, and you will find scores of picturesque objects, that will make fine models for foreground studies. Select simple objects and do not try too complicated compositions until you have gained more experience in sketching from nature.

In making shaded pencil sketches of foregrounds be sure that you contrast your objects well, so as to obtain sufficient relief in your drawing, having the dark objects appear against a light background and vice versa. Returning home redraw carefully the best of your outdoor sketches to a uniform size, not less than 5x7 inches. Do not add anything from your imagination to your sketches from nature, but redraw them correctly and finish and shade them carefully, so that they stand out in bold relief with well defined lights and shades, and not gray and smudgy all over.

Before trying to sketch trees and foregrounds directly from nature, it will be good practice to draw a lot of copies of these objects, as can be found in good cuts and illustrations in the best magazines and periodicals. You will then be familiar with the "technique" of other artists before trying yourself to draw directly from nature.



## CHAPTER THREE

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### ELEMENTARY PERSPECTIVE.

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PERSPECTIVE has always been considered a most uninteresting and dry study; nevertheless it is the true grammar of all outlines, and as such, indispensable to all serious-minded students of Theatrical Scene Painting.

In this book are only given the most essential and easiest applied elements of "linear and angular perspective," applicable to practical problems occurring daily in the shop or studio, and you will be shown, in a comprehensive way, the proper adaptation of every line, in expressing with truthfulness the parts and proportions of every object that recedes. Without applying this simple rule of elementary perspective, the most beautifully wrought and the most carefully executed Scenic Painting, in other respects, would be little else than an assemblage of painful and complicated errors.

The appearance of any object depends on two conditions, position and distance. The position of an object or its different angle to the eye alters its appearance. Take, for instance, an ordinary barrel hoop, and hold it in front of your eye, parallel to your body, and it appears as a true circle, but if you view it at an angle, the circle becomes an ellipse; if you view it edgewise you see it as a straight line. All these are perspective views of a circle, changed by "position" of the object to your eye.

Parallel retreating lines converge. For proof of this stand in the street and observe the buildings on either side. As they retreat you will notice that they tend toward each other; or stand on a railroad track and you will observe that the two parallel rails seem to run closer to each other the farther away from the observer they are.

This convergence causes the farther side of an object to appear smaller than the nearer side. Look down a row of equally high telephone poles and notice that the farther away they are, the smaller they appear to the eye. Retreating lines, whether above or below the eye, tend towards the

level of the eye. Parallel retreating lines meet at the level of the eye. This point is called the "vanishing point."

Fig. 2 shows a box (A) placed directly in front of the eye, only the front side being seen. Placed to the right or left (B and C) at 90 degrees it is seen in parallel perspective, also in D and E. At an angle of 45 degrees (F, G, H, J) it is said to be in angular perspective to the observer.

## PART ONE.

To make a perspective diagram, draw first a horizontal line of indefinite length (see Ill.). This is called the "horizontal line" and represents the line of the eye. Objects which are above or below the level of the eye are drawn in a corresponding position with regard to this line.

Make a dot at or near the center of the line. This represents the point directly opposite the eye and is called the "center of vision (C. V.)" or "vanishing point" (V. P.), as all lines which retreat at an angle of 90 degrees vanish or meet here. Draw a line from this point at right angle to the horizontal line. The end of this "principal visual ray" is the position of the eye of the spectator and is called "station point" (S. P.). With a compass measure off the distance from C. V. to S. P. and set them off on line first drawn at M. P. 1 and M. P. 2. These are called "measuring points."

Now draw the front side of cube below the horizontal line and to the left of the principal vision ray (1, 2, 3, 4). In this position we are able to see the top and one upright, retreating side. These retreat at an angle of 90 degrees; their directions are therefore towards the "center of vision" (C. V.) which is their "vanishing point" (V. P.). Draw lines from the two top corners (1-4) and lower, right corner (2) of cube to vanishing point (V. P.). Now, the question arises, where shall we place the farther vertical and horizontal lines in order to complete the perspective drawing of the cube?

These can be found in the following way: Extend ground line of cube out to the right. On this line set off the width (6) of the cube (3-2). From 6 draw a line to measuring point 1 (M. P. 1). Where this strikes line 2, running from 2 to V. P., the farthest side of cube will come. Now draw a line from 7 to 8, parallel with side of cube and from 8 another line, parallel with top, over to 9 and you will have all the outlines of the cube in their true perspective relations. Make in all eight drawings of cubes, placing this in eight different positions to the eye.

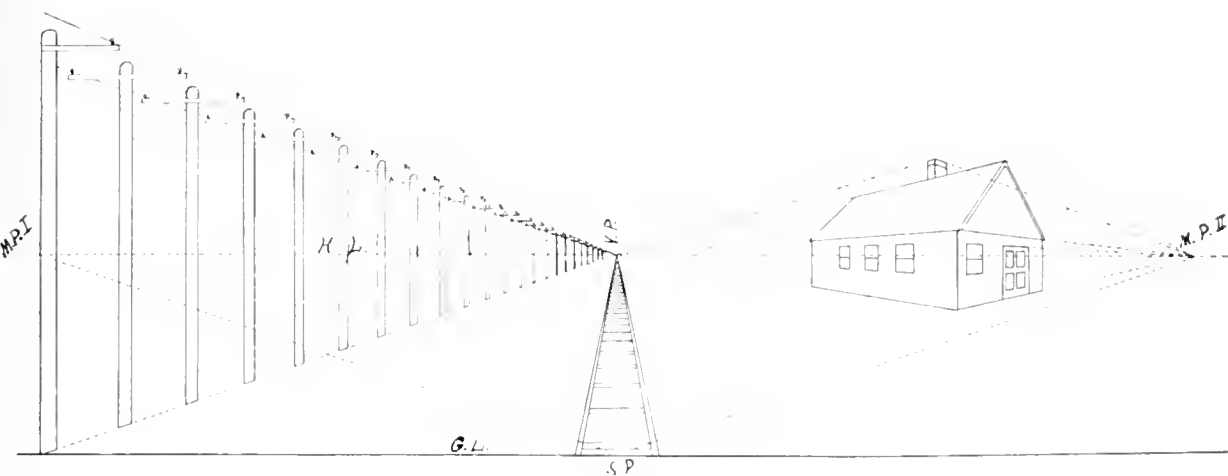


FIGURE 1.

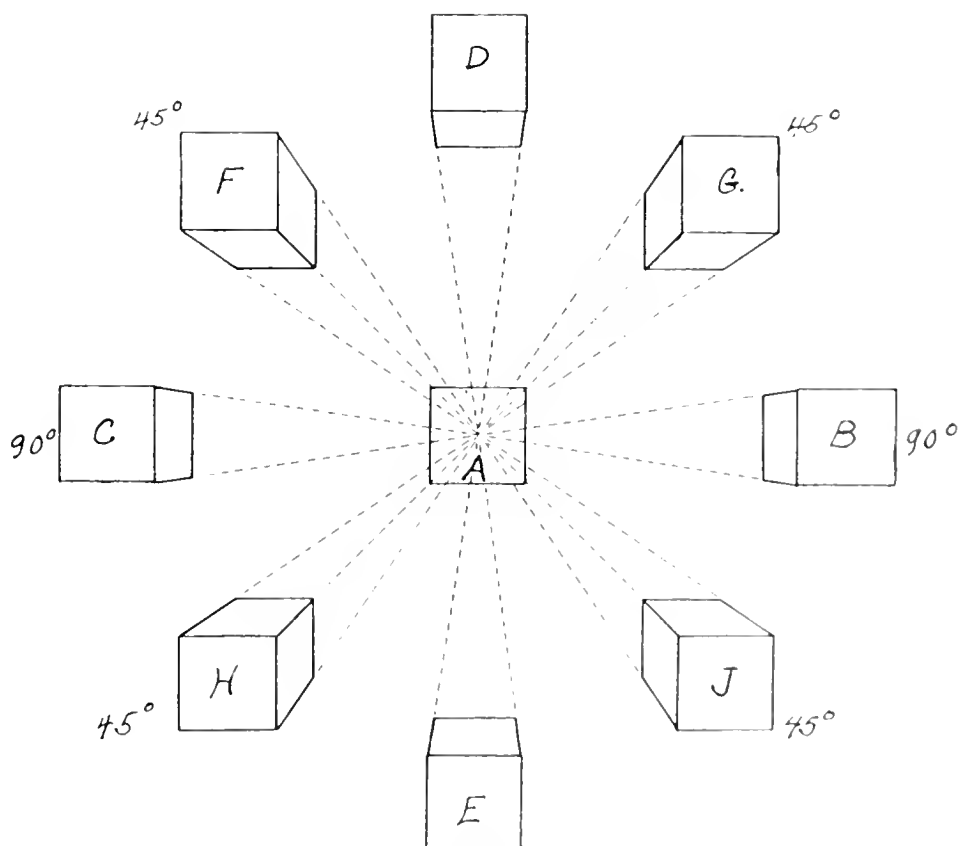


FIGURE 2.



## PART TWO.

In order to make a true, perspective drawing of a floor with square tiles, proceed as follows (see illustration): Draw horizontal line (H. L.). Find center and draw vertical line from V. P. to S. P. and find M. P. 1 and M. P. 2 as previously explained. Draw a ground line (G. L.). Set off nearest edge of floor (1-2) one-half on each side of P. V. R. Divide this edge in equal parts and draw lines from these points to V. P. Then draw diagonal lines from lower corners of floor (1-2) to M. P. 1 and M. P. 2. These lines will also form diagonals for the foreshortened squares, which now can be drawn in. Every second of these may be shaded. Make a large drawing of a tile floor, seen in perspective.

## PART THREE.

In order to draw two houses showing gables and sides in perspective, proceed as follows: Draw horizontal line (H. L.). Find center and draw vertical line through same (P. V. R.). Set off S. P. and M. P. 1 and M. P. 2. Then draw ground line (G. L.). Now draw the near side of the first house (A, B, C and D). Then draw lines from A and B to V. P. Find the farther upright side (1 to 2) by the same method as taught in Part I of perspective. Now draw a line from C to A and extend to where it meets vertical line (3). Extend line running from 1 to 2 to where it strikes line running from C to 3, which is point 4. Extend a H. L. from 4 to G and a line from D to 3. Where line from G to V. P. strikes line from D to 3 is the point where will come top of roof (11). Extend line C D to G and line B A to E and draw a line from E to V. P. and where this line strikes line running from C to 3 is top of gable(5). Then draw line from 5 to 2, which gives the farther side of gable.

House No. 2 is drawn in a similar way. Make four different perspective drawings of houses, lying on both sides of P. V. S. Make all of your drawings a great deal larger than the illustrations given in this book.

## PART FOUR.

To draw a room in true perspective the following method must be followed: 1 is the front edge of floor, a given square. 2 is one side of floor receding to vanishing point (V. P.) which is, also, the point of sight. 3 is the other side of floor, receding to same point (hence the room is viewed from a position exactly opposite to its middle). 4 is a scale to obtain width of room taken, as explained in Lesson I, at its intersection

with 3 is the farther corner of floor. 5 is a line from above intersecting and parallel to the front edge of the floor; this gives the back line of floor. 6 is a scale taken like 4 to M. P. 2. 7 and 8 are front lines of walls, which should be made parallel, of equal height, and at 90 degrees (right angles) to floor; at top point connect them with horizontal line (H. L.). Draw lines from top corners to V. P. Erect two lines at 9 and 10 parallel with 7 and 8 and reaching 11 and 12, connect these lines with a line, parallel to 9 and 10 and you will then have all the outlines of the room in correct perspective planes. If you desire to make perspective drawings of door and window in the room, this can be done by applying rules, as laid down in former lessons. Make six perspective drawings of room, changing the position of V. P. in each of them.

### PART FIVE.

Figure 7 shows a circle drawn in perspective. Draw a horizontal line (H. L.) principal visual ray (P. V. R.) at an angle of 90 degrees to this and a ground line (G. L.) parallel with H. L. Fix the point where circle is to come in contact with ground line (plane of measure) as at A. Mark off on G. L. the width of the diameter of the circle B. C. Draw the diagonals in a perspective square, made as taught in lesson I. The ends of the diameters (A, F, G, H) are the four points of contact of the circle in the perspective square.

For greater accuracy we must also find points where the curves cross the diagonals. These are found by constructing the square, or half of it, in the plane of measures, and having found the points in this, transferring them to their corresponding places in the perspective plan. Construct half of square B. C. as one side. Draw the semi-diameters and semi-diagonals. Find the points on the diagonals through which the circle passes by measuring out on them, from the center, the length of the semi-diameters, or by inscribing the half circle. This gives points D and E. Transfer these to the ground line at I and K by vertical lines. From I and K draw lines to the V. P. and where these cross the diagonals of the perspective square, will be the points, corresponding to D and E. Draw the curved outline of the perspective circle freehand through the points thus obtained. Make 6 different drawings of circles in perspective in different positions to V. P. and P. V. R.

### PART SIX.

Fig. 8 shows the method of drawing a tumbler in perspective. To make such a drawing correctly, proceed as follows: Draw the nearest







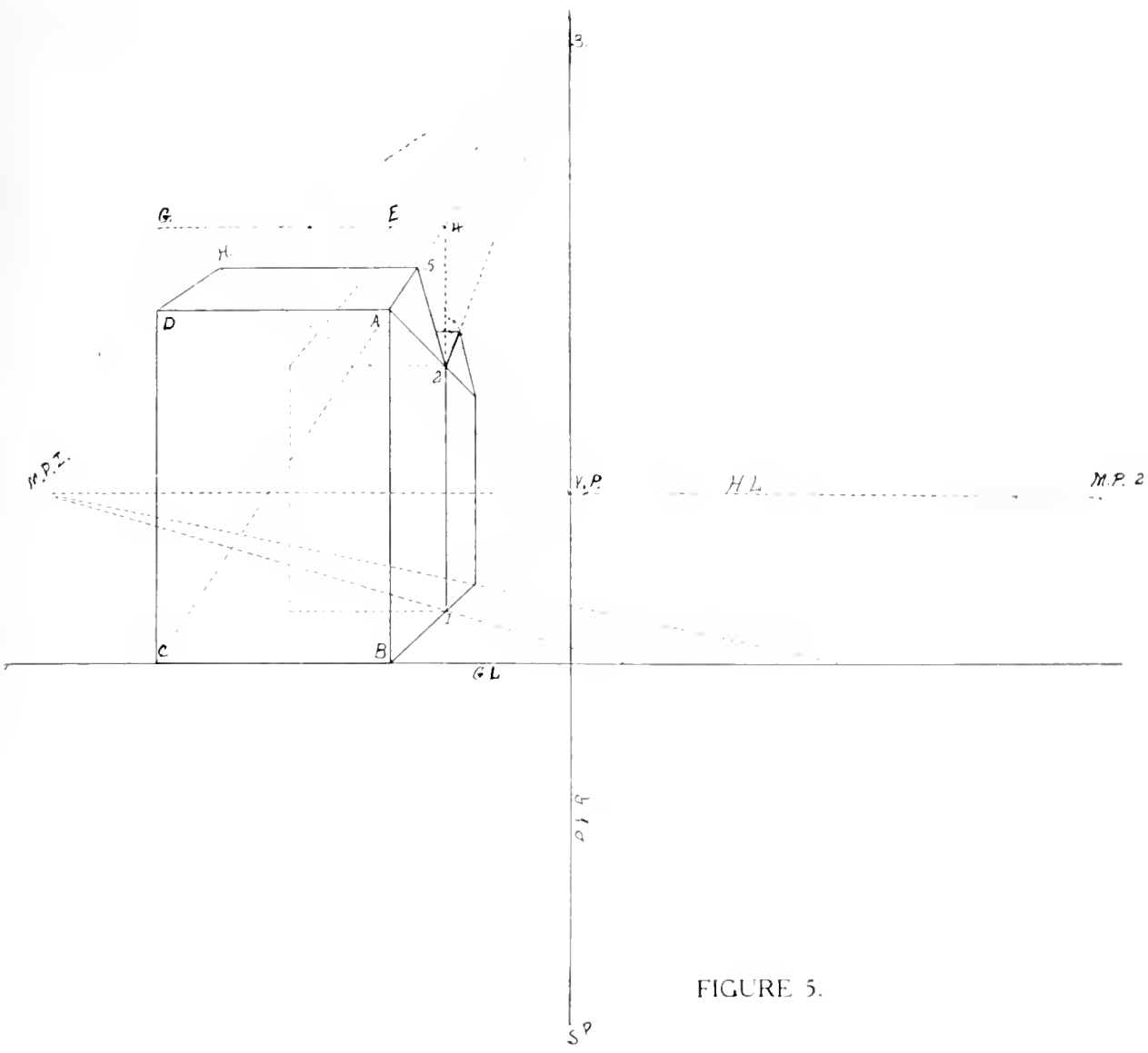


FIGURE 5.

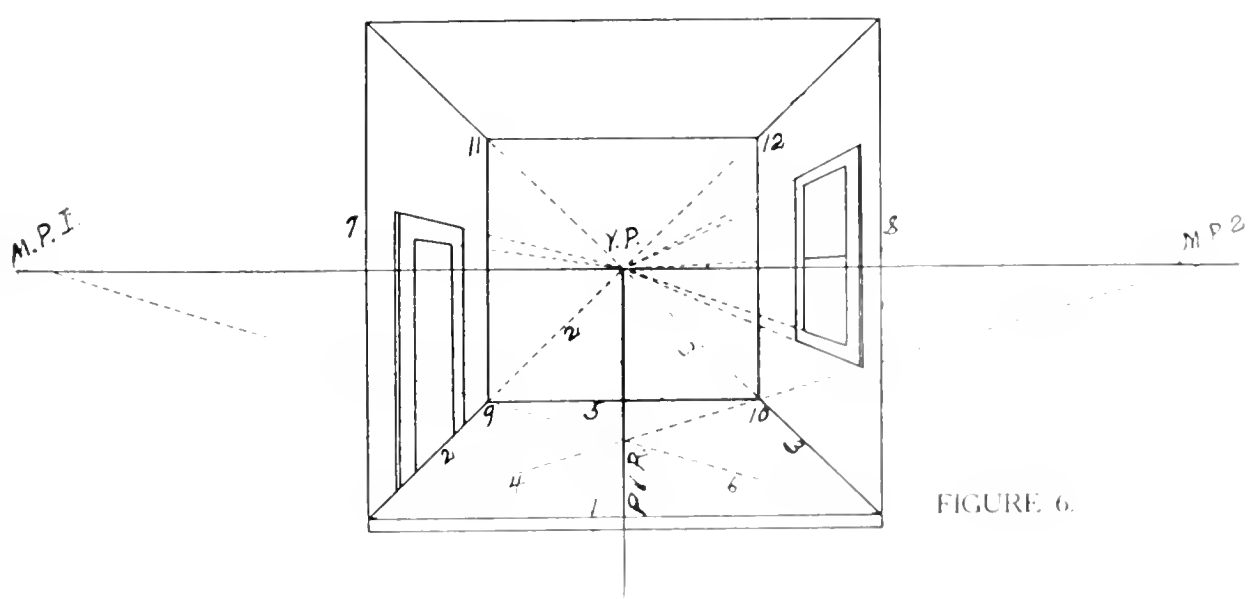


FIGURE 6.



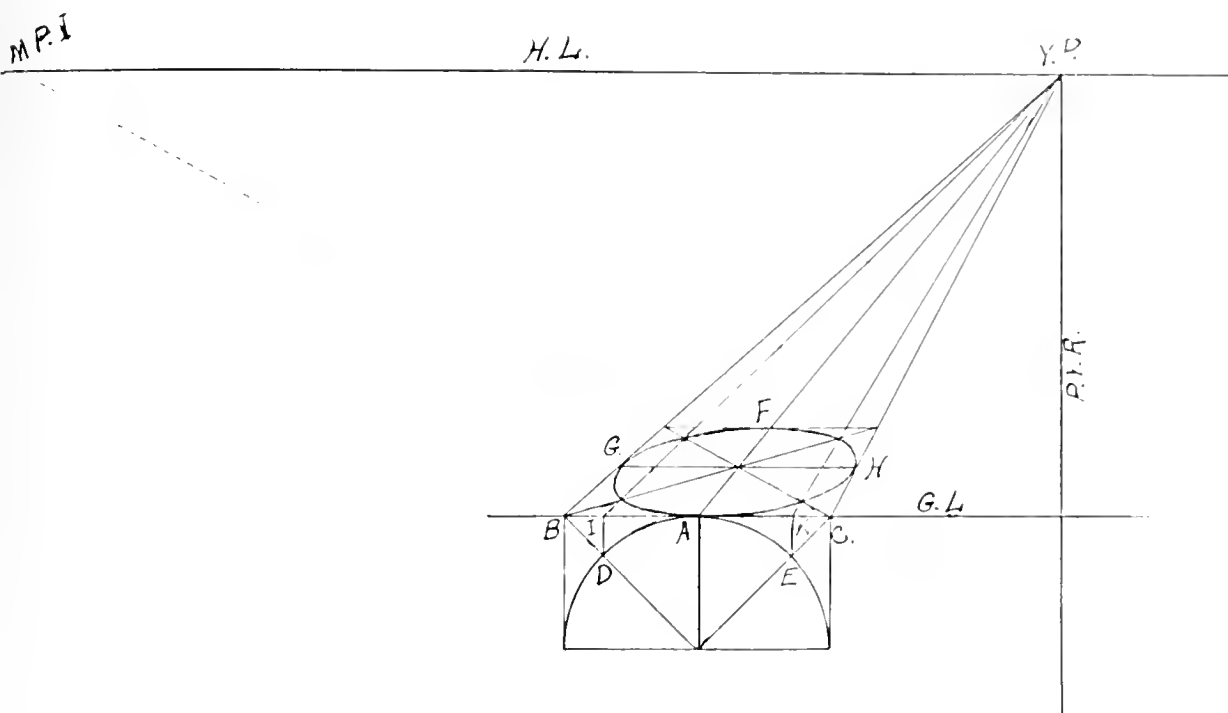


FIGURE 7.

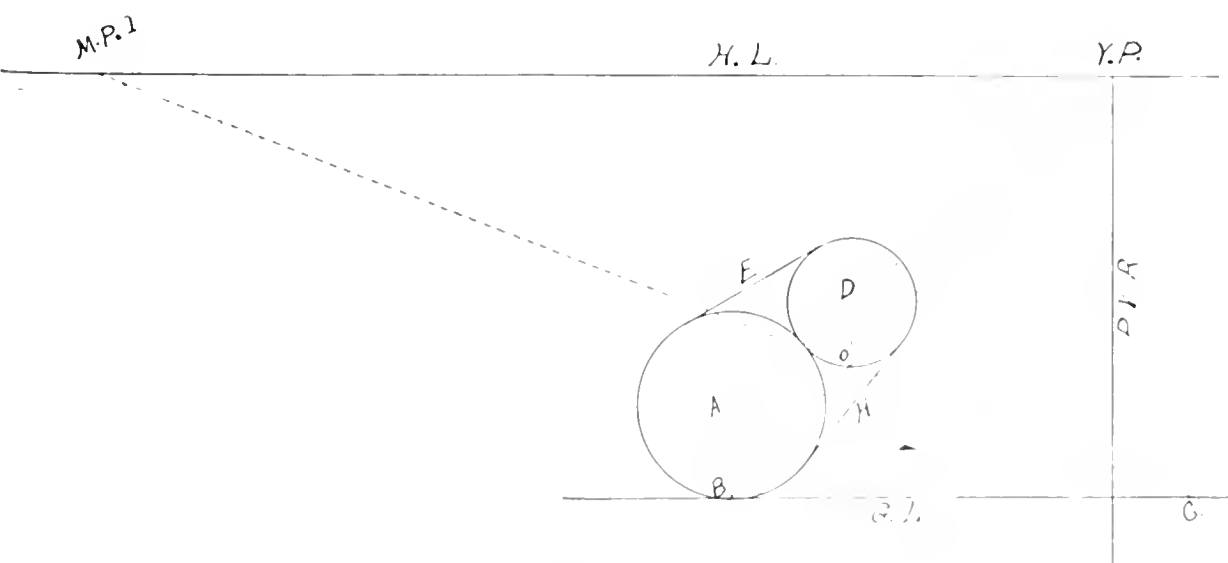


FIGURE 8.



circle in the plane of measures, touching the G. L. Draw A. B. from the center to the point of contact with the G. L. This is the radius of the circle. Draw lines from A. B. to V. P., thus A will pass through the center of all circles, which may be drawn beyond, and B will pass through their point of contact with the ground. Make a scale from B, the actual distance of the farther circle from its position in the foreground, C, a line from the end of this scale to the M. P. I will, where it crosses the retreating line from B at O, give the position of the farther circle. Draw a vertical line from O to D. With D as a center and the distance to O as radius, draw the circle. Lines connecting the circumferences of the two circles will form the sides of the tumbler. If top and bottom of tumbler is seen in perspective and not parallel with the picture plane must be enclosed in square and drawn, as described in former lesson on perspective circles or ovals. For practice make six perspective drawings of tumblers and cylinders in different positions.

The above are the most essential rules of elementary, parallel perspective and will impart to you sufficient knowledge of the simplest perspective problems that you have to solve in your practical work in the shop or studio. With these rules well mastered and fully understood and complied with, and a close reliance on the practical training of the eye, by actual study from objects in perspective, you will be enabled to draw correctly what you see before you.





## CHAPTER FOUR

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### LANDSCAPES IN BLACK AND WHITE.

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WHILE sketching trees and making foreground studies you have a good chance to observe the general outlines of the surrounding landscape and to become familiar with the effects of light and shade in the open air and these observations will, doubtless, help a great deal when you commence to make shaded drawings of landscapes and country scenery.

The first thing to be considered when going out to sketch from nature is to decide on how much should be included in your picture and how much to exclude. A great many things in nature may look both beautiful and grand, and still not be suitable for models for a well balanced black-and-white drawing. The main thing to avoid in your landscape studies is spotted, salt-and-pepper effects, with an equal amount of details strewn all over the picture and having no definition between far distance, middle distance and foreground. It is better to seek a pronounced contrast of light and shade so that all light objects show against a dark background and vice versa. To illustrate for instance: Having a light, sunlit rock in the foreground against the dark, cool shade of a dense wood in the middle distance, or a black stump of a tree throwing a strong shadow and surrounded by a lightly drawn middle distance in full sunlight. In selecting a subject for a landscape sketch choose a simple one with some well-defined object in the foreground.

Some rudimentary knowledge of linear perspective is necessary when sketching landscapes. Do not include any more of the view before you than you can see with one glance without moving your head or eyes. This view is called the point of sight. If through this point a straight line be drawn across the picture, parallel to the top and bottom of picture, this line is called the "horizontal line." It does not, always, follow the horizon of the landscape before you and it can be laid high or low on the picture, all according to your position, but it should always be directly opposite to

your eye. It is the vanishing point for all straight lines, receding from you; those below the horizontal line will tend upwards to it, and strike it at a point directly opposite your eye; those above it will incline down toward it and meet in the "vanishing point," opposite your eye. If this be constantly borne in mind, many common errors of perspective will be avoided. A more detailed and scientific explanation of these phenomena will be found on a previous page dealing with perspective drawing.

In sketching from nature we must, also, consider the rudiments of color perspective, which show that color and form gets grayer and more indistinct, the farther the object is from the observer; this is more noticeable on gray, cloudy days than in bright sunlight. Always remember this when making an outdoor sketch, otherwise it will be hard, unpleasant and devoid of atmosphere. The object in the near foreground should be drawn with bold, heavy strokes of a very soft lead pencil, while in the middle distance the landscape should be shaded with less vigor, the outlines should be left softer and more indistinct and in the far distance all lesser details should be omitted and the shadows should be shaded with a very light touch of the pencil.

Your first studies should be made from the sky without any indication of the landscape below. First try to obtain the even, graduated shading of a clear sky, making the drawing darkest at zenith, growing gradually lighter, as it approaches the horizon. Next make sketches of cloud effects and finally of sunset effects. All these studies should be drawn in masses and should show no outlines whatever.

For your first studies select a simple landscape, easy to draw; for instance, something on the order of the one illustrated in Fig. 1. You can use the vignetted style of finish for the studies that you should make of this landscape, viewed from different points. Make these first sketches under a clear sky. For your next sketches choose some forest interior or wooded country. In your last sketches you should try to obtain the distinct effect of atmosphere and illumination, choosing the early morning or late evening hours when the shadows are long and the distance hazy and indistinct.

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## INTERIORS.

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From the forests and fields to which the former lessons took us, we now turn back to the house with our sketching tools which we in this

# PLATE 4.

FIG. 1



FIG. 2



FIG. 3



FIG. 1





Lesson shall use in making correctly sketched and shaded drawings of the interior of common dwelling rooms.

For models select plain rooms with simple furniture and windows on one side only.

Place yourself so as to get the light from either the right or left side but not from the front or back, as this kind of light will make the problem of shading considerably more difficult. Before starting to make drawings of interiors it will be best for you to faithfully copy the illustrations or secure some illustrations of good magazines. You should strive to obtain the same finished effect in your interior sketches from life as you observe in these illustrations.

For your first interior sketch select as a model a piece of a plain wall, showing a door and, possibly a picture or mirror hung on the wall above a chair, dresser or other piece of furniture.

"Block in" the main objects, avoiding all details, using, as usual, charcoal outlines for this preliminary sketch. Wipe out partly, correct wrong proportions and put in more details, finish up with a hard lead pencil and use a ruler on all straight lines. Finally shade up nicely, taking great care to obtain all shadows, shades, half-tints and high lights in their right relations and density. If wall is papered indicate the pattern of the wall paper in your finished drawing.

For your first sketch of wall and door remove all of the furniture and make the sketch of bare wall and door alone. Be sure that you indicate the shadows under mouldings and panels in door correctly, and look well to your high lights and reflected lights on door and shade them up correctly. In shading wall you will observe that it has not an even gray shade all over but is lighter on the part nearest the window and a trifle darker toward ceiling and floor.

When commencing your next sketch from the same model move a little further away from the subject so your eye can take in part of ceiling and floor in one glance, and include these fragments in your next sketch. For the last sketch of this problem you should hang a picture or mirror on the wall and place some plain furniture under it. Be very careful in obtaining a correct drawing of this and observe that your perspective and foreshortening of planes is sketched in true to the objects before you, before you proceed to shade the drawing.

For your second problem select the corner of a room for a model. Make sketches of this, proceeding as before, and place more furniture in the corner before you, every time you have completed a sketch of the corner.

Then move farther back until you can see all three sides of room and proceed to make sketches of this view, seen from three different positions. Remember the simple laws of perspective given on former pages and be sure that all of the straight lines, receding from you, will meet in the same vanishing point, directly opposite your eye.

For your last problem select a more richly appointed interior with elaborate furnishings. Make different sketches of this interior as seen from different positions. Spend a good deal of time on this work, being very careful to get all details drawn correctly and in their right relations, perspective and dimensions. Obtain this correctness of drawing in your preliminary sketches before you start to shade them up and remember that no amount of shading will hide a wrongly drawn outline to the eye of a trained critical observer. In shading try to indicate the softness, illumination and atmosphere of the room before you so that your finished drawing is full of light and shade and don't look hard, unpleasant and rough. Go in for strong contrast, placing light objects against dark backgrounds and vice versa.

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## STREET SCENES.

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We will now go out of doors again and take up our sketching from nature, as before, when we made shaded pencil drawings of trees, foregrounds and landscapes. This time we shall try the somewhat harder task of sketching houses and street scenes. The drawing of interiors should have made us familiar with the straight outlined objects and their perspective foreshortening. This knowledge will be of great service when we begin to sketch a row of houses, a street corner, a market place, a church, a public square or a long street with high buildings where the greater part of the drawing consists of straight outline objects and planes seen in perspective.

Before starting to draw houses and street scenes from nature you should copy very carefully the illustrations given here and also in illustrated magazines and papers find a number of cuts that depict similar but somewhat more complicated scenes. Draw a goodly number of these and keep this practice up until you have become familiar with the methods and technique of other artists, then select some postcards, showing houses and street scenes, photographed from nature, and keep on making shaded pencil drawings from these photographs until you are able to secure just as an

artistic and well-finished effect as that obtained by the artists who drew the originals of the cuts you have been copying.

For your first problem in sketching street scenes from nature select a single house, lying at the roadside. Draw this carefully and correctly, selecting a view that shows two sides of the house. Be particular about the perspective and shade up strongly, leaving a well-marked distinction between light and shade, high lights and shadows. After having completed your first sketch satisfactorily, move to a different position and draw another view of the same house. Repeat this process several times until you have obtained several different and well-executed sketches of the house.

For your next problem select one side of a street as a model. Choose a street with few and simple dwellings or store buildings. Stand on opposite side of street when making sketch, and you will note that buildings gradually grow smaller and more indistinct as they recede farther away from you; put more detail work and heaviest shading on building nearest to you, and less and less the farther the buildings lie up the street; thus securing correct linear and aerial perspective at the same time. Make different sketches of this row of houses, shifting your position every time so as to obtain several views of your model, with a different problem of perspective drawing each time.

For your last problem select a more prominent business street with taller buildings and, possibly, a market place, a church or a public building in the distance. Select a view from which you can see both sides of street, and make your sketches on a clear, sunny day, so that one side of street lies in cool shades while the opposite is bathed in strong sunlight. Put most of the details in sunny side and make your shadows dark and strongly marked, while in the shaded side of the street the buildings should be left gray and with faint and indistinct shading. If you succeed in carrying out this problem of illumination you will obtain sketches that will be full of atmosphere and sunshine. If your sketches drawn from nature are well finished you will not need to re-draw them at home, but if your straight lines are crooked, your buildings lean to and fro and your perspective is wrong, you had better make a new drawing at home, improving your sketch from nature and correct all visible faults of drawing and shading.





## CHAPTER FIVE

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### CRAYON DRAWING FROM OBJECTS.

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THE crayon pencil is somewhat harder to use than the lead pencil, but the beautiful softness and richness of tone that can be attained by this medium puts it far ahead of the shiny and often hard and metallic effect that a fully shaded drawing, made with lead pencil, is likely to attain when made by inexperienced hands. And then the crayon point can be combined with stomp, which, when properly used, gives soft, delicate, velvety tints and shades that cannot be obtained as easily by any other black and white process.

The materials to be used in crayon drawing are:

- One or more Brass Crayon Holders.
- Charcoal sticks.
- One Conte Black Crayon Pencil No. 0 (hard).
- One Conte Black Crayon Pencil No. 2 (Medium).
- One Conte Black Crayon Pencil No. 3 (soft).
- Six Sticks Square Conte Sepia (Bistre).
- One Conte Crayon, white, in polished cedar.
- One Crayon Sharpener (sandpaper block).
- One piece Sponge Rubber or art gum.
- Drawing Board and thumbtacks.
- Tinted and white charcoal paper.
- Rough surface drawing paper.
- One each Nos. 3, 6, 8 yellow leather stumps.
- One each of Nos. 3, 6, 8 gray paper stumps.
- One dozen Tortillon stumps.

These materials are not expensive and can be had at all large art stores or painters' supply houses.

When selecting the models for your crayon drawings from objects choose some of a more difficult and intricate design than those you have been drawing from so far. Arrange them on a table or stand, against a

suitable background and try to obtain pleasing combinations and effectual arrangements of the objects.

For one combination we should suggest an old worn book, showing paper bookmarks protruding from the leaves. Open the book, place a rosary with crucifix and a blooming rose on top of it. Set a brass candlestick with a half-burned candle in it behind the book; in the foreground an inkwell made out of steer's horn with a goose quill in it and an hour glass placed next to it will make the composition still better. Another effectual composition is formed by tipping over an old market basket and having all kinds of fruit and vegetables pouring out of it. Be sure to place your model in a good strong light coming from one side only, so that your objects show up in good relief with clear lights and well defined shadows.

Place a few sheets of white drawing or charcoal paper on your drawing board and, after having arranged your model, as indicated above, place your drawing board in an advantageous position and proceed to block in the composition, using a well-pointed stick of charcoal for this work and omitting all curves and smaller details in your preliminary sketch, which should only indicate the main features of the composition, sketched down in their right proportions with a few quick strokes of the charcoal. When you are sure that your outline sketch is correct as to dimensions and relative proportions of the objects, wipe out charcoal lines partly, and redraw with a well pointed, hard crayon, this time paying more attention to details and curves. Touch the paper very lightly with the crayon point, and make a clean even outline which should not show after your drawing has been shaded.

Now start to shade in the background, following the lights and shades as they appear in the background, using a soft crayon for this work and make the shading a great deal lighter than it appears in nature.

Then take one of your large paper or leather stumps and rub lightly, but firmly, over the shaded part of your drawing until all blotchiness, unevenness and roughness is eliminated and the shaded part has a soft velvety appearance. Where the background touches the outlines of the objects it will be advisable to use a smaller stump, so as to cut in shading with a clean line around the unshaded parts.

Starting to shade the objects, you should begin with the heaviest shades and put them in first, then go to the middle tints and leave highlights clear. Rub over your drawing, as you did over the background, using a medium and small size stump. Where halitones meet highlights the point should not be used, but just the stump, charged with whatever crayon dust there

may be left on it; in this way you can obtain a very fine graduation of tints from the lightest halftones to brilliant white highlights. After the whole drawing has been smoothed with the stomp it may have lost some of its strength and vigor. This can be restored by going over the heaviest shades and shadows with the point and leave these marks unrubbed in finished sketch.

As a study for your first crayon drawing use the old market basket, spoken of before. Fill it with fruit and vegetables, put it on the model stand in front of you and tip it over so that the contents fall partly out and spread on the table. Arrange a plain background behind the model and proceed to sketch it in, as described before. Be very careful to obtain a correct outline sketch before you start to shade your drawing, as no amount of shading will correct a faulty drawing. Place basket and contents in different positions and make in all four or six studies from this model.

For the next models use objects such as candlesticks, old books, decanters, mugs, vases, jardinières, china, etc. Arrange several pieces of these models in effective and artistic, pyramidal compositions and make, in all, not less than twelve different sketches of these compositions.

Having made these drawings and now being familiar with the effects that can be obtained with crayon, point and stomp, you should secure some plants and flowers and make about six studies of these, profiting by the experience gained in your previous attempts at drawing flowers with lead pencil.

As the scenic artist will have many occasions to paint draperies and draped goods, it would be well for him to have a thorough knowledge of the drawing of draped goods, and you should select some light goods, such as silk or silkoline, velvet or velveteen, and hang this up in artistic folds and drapings and then make different crayon studies of these draperies.

For your last crayon drawings from objects use tinted charcoal paper, pink, buff, cream, gray, or light green, or any other tint that can be obtained. Proceed as before, but do not use the stomp; try to obtain a smooth, finished effect with the point alone and put in the strongest highlights with white chalk or crayon.

---

## CRAYON DRAWINGS OF INTERIORS.

---

Before you start to make crayon drawings of your room, you should select a few illustrations from the current magazines, showing interiors

drawn in crayon. Copy these to the best of your ability and you will thus learn how other artists have obtained certain effects.

You should profit by this knowledge when you come to make interior drawings directly from nature. Before starting read over the directions given in a previous lesson for the making of interior drawings with lead pencil. The same general rules laid down in that lesson will hold good when you come to employ the crayon point, only that you now have an extra tool at your service, the stomp, with which you can obtain softer and more transparent shades than with the lead pencil. First get a correct outline sketch of your model, then lay in all the shades in a great deal lighter key than in nature, using the stomp only, dipping it in scrapings from your crayon point when you desire dark shades and using it with very little crayon dust on it when you want light tints, leaving the strongest highlights blank. Then strengthen all your shadows with the crayon point and put in the smaller details with this; rub over the study lightly with a clean stomp and finally strengthen the darkest shades and shadows with the point, using a soft crayon for the shading and a hard one for the outlining. If your highlights have been mussed up they can be cleaned with a small soft eraser cut to a point like a stomp, smaller highlights can also be cut out with this handy tool. Choose a plain interior for your first four sketches, then a more difficult one and finally one containing many details and much furniture. Make the last sketches on tinted paper and bring out highlights with white crayon or chalk.

---

### **CRAYON DRAWINGS OF LANDSCAPES.**

---

Beautiful landscape sketches can be made with the crayon point and stomp. As before, you should select some printed illustrations reproduced from well-known artists' crayon drawings and copy these faithfully before you attempt sketching from nature.

When starting to make sketches in crayon out of doors, the rules for landscape painting given in a previous lesson should be studied anew and followed in making the crayon sketch. The sky can in most cases be put in entirely with the stomp, and beautiful and soft cloud effects can be built up with this handy tool. Make several landscape studies in crayon, going from easier to more difficult motifs for your sketches, but be sure that your compositions are well balanced and secure strong contrasts of

light and shade in the foreground and softer blending in the middle and far distance. Use tinted paper and white crayon for highlights for the last of your landscape sketches.

---

## CRAYON DRAWINGS OF FIGURES.

### The Human Anatomy.

---

We now come to the solving of a more difficult problem than we, so far, have encountered, namely, the drawing of the human figure. As you can not pose as a trained scenic artist without some rudimentary knowledge of the human anatomy and figure drawing, we shall here give you the essentials of this work in a few brief remarks, followed by some practical hints and directions for the execution of the simplest of these drawings.

In constructing a true representation of the human frame we must first consider the osseous (bony) structure, which is covered with sinews (perisotium), muscles, layers of fat and adipose membrane (of the skin).

We shall first consider the bony structure (the skeleton). The skeleton is a combination of some 200 bones, but here will only be considered the most important of these. The human structure is divided into the trunk and the extremities. The former consists of the head, the ribs, the breast-bone, the hipbones and the backbone, the latter are the arms and legs. The bones of the head consist of the cranium and the face.

When the backbone is viewed in profile it has a somewhat curved and serpentine form. The bearing of the figure, more or less upright, is dependent on the curvature of the spinal column.

All the ribs (see figure of skeleton) present a form opposite to that of the living figure it should be, nevertheless, well considered as the foundation upon which must be built the true form of the principal part of the trunk.

The breastbone protrudes forward and downward. In the female the angle is greater than in the male, while the neck is more upright in a woman than in a man.

The pelvis is larger and more capacious in the female than in the male.

The upper arm consists of one bone, the lower of two. There are numerous small bones in the carpus (the wrist), metacarpus (back and palm of the hand), to which succeed the bones of the fingers.

The upper leg consists of one bone, the thigh bone, and below the kneecap of two bones.

The form of the head is indicated by the skull and the lower jaw. The shape of the forehead is indicated by the frontal bone that differs with individuals and races; that of the European, however, has been given as the acknowledged standard of its height.

Before starting to draw any part of the human body, you should draw the illustration of the skeleton, given herewith, and make one or more large and absolute correct drawings of the same. Sketch in charcoal, redraw with lead pencil and finish up the outline and shade with pen and ink, trying to imitate the effect of the cuts illustrating this lesson.

To enumerate all of the muscles of the body in this brief treatise would occupy too much space and would not be necessary for our purpose. We should urge the pupil, however, to study carefully the illustrations given herewith and to copy every one of them faithfully several times until he knows by heart the location and outlines of the most important muscles and the correct proportions of the human body.

---

## FIGURE DRAWING FROM LIFE.

---

Having obtained a fair knowledge of the various proportions of the human body, you should procure from 6 to 10 artistic illustrations of the nude, male and female figure and copy them faithfully, thus enlarging your knowledge of the human form. After having completed a number of these studies you are now far enough advanced to be able to draw figures and heads from life, but should not attempt to do too much when starting this very difficult but equally important work.

Start with drawing parts of the body first, using some of your friends as models. First make drawings of eyes, as seen in different positions. Then draw an equal number of noses, both in profile and seen from the front, then as many drawings of mouths, ears and hair. After that try a face in profile and finally make sketches of the full face. Keep up your study of the figure by making sketches first of the arms, then the legs, next the trunk, and finally of the feet and hands and at last of the full figure in different positions. Do not think that we ask you to do too much of this kind of work; it is very important, and good figure painters have the advantage of the other fellow who can not draw figures from life.

PLATE 5.

== • HUMAN ANATOMY • ==

COPYRIGHT.



SKIN REMOVED, SHOWING MUSCLES OF HEAD, NECK, TRUNK & LIMBS





## PORTRAIT WORK IN CRAYON ON ENLARGED PRINTS.

---

The Crayon point is especially well adapted to portrait work, and by the use of the stomp or a piece of cotton dipped in crayon sauce, the soft and delicate shading of the human face can be obtained with great rapidity.

For your first attempt at this kind of work copy some heads done in crayon by some of our best illustrators, then select some halitonic reproductions of photographs of heads and copy them in crayon. Next use a photo of yourself or some friend, as the original; procure an enlarged print of this photo and retouch it all over with the crayon point and stomp and you will be surprised to see what a beautiful and lifelike effect you easily can obtain.

After worked up in crayon they should sell for from \$3.00 to \$5.00 apiece.

Good figure drawing is one of the most difficult in the whole book, and we should advise you to pay a great deal of attention to it and spend considerable time on it, and we can assure you that this will pay you well in the future.



## CHAPTER SIX

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### PEN DRAWING.

---



THE foremost scenic painters are of the opinion that the greatest difficulty in the way of a beginner who attempts to learn to draw or paint, is to learn to see. It is obvious that we can not represent the appearance of an object with exactness and precision if we are not able to see it correctly. It is self-evident, therefore, that the most important part of learning the scene painters' art should consist of training the eye and the hand, and no better means to that end can be found in the practice of drawing from copy objects and nature with pen and ink.

The scenic painter will often have occasion to use pen drawings in their profession and will frequently be called upon to make this class of work for cuts and illustrations that, at the present day, can be made very quickly and cheaply, and, as the artist who knows how to make pen drawings for reproduction has a great advantage over the other fellow who has not studied this kind of art work, we have included a short treatise on the art of pen and ink drawing. The efficiency of execution and the splendid training of eye and hand gained by this practice will repay many times for the trouble and time spent in this instructive study.

---

### TECHNIQUE OF PEN DRAWING.

---

Of late years several influences have tended to raise the importance of pen and ink drawing as an independent art. Chief among these is the gradual substitution of photo-chemical process for the hand work of the engraver.

There are two distinct methods of obtaining effects with the pen, one by few lines laid slowly, and the other by many lines drawn with rapidity.

As most pen and ink drawings are now done with a view to reproduction in the printing press, it should materially assist you to know how this is brought about. The following is a simplified description of the ordinary zinc etching process. A photographic negative is first taken of the drawing, in which the aim is to secure perfectly clear glass where the lines are, and an opaque black for the white paper. A polished plate of zinc is coated with a thin film of gelatine to which a small percentage of bichromate of potassium has been added. This metal plate is then put into a photographic printing frame under the negative, just as if it was prepared paper, and exposed to the light. After sufficient exposure, it is removed from the printing frame and placed in warm water, when the unexposed parts of the film dissolve away, leaving only lines of gelatine hardened and insoluble where the light has penetrated. When dry it is submitted to the action of a corrosive liquid (mercuric chloride or iron), which attacks the metal where free from gelatine and so eventually lowers the surface of all but the lines. These lines remain standing to be printed from along with the raised type of the letter press.

The importance of making perfectly black lines and using clean white paper can hardly be exaggerated from the technical point of view.

A pen drawing may either be sketched in pencil, to be removed afterwards with a soft eraser, or made in pencil on another piece of paper and traced, using blue tracing paper. There is a third method, that of making a very decided pencil drawing on one piece of paper and then choosing a thin, semi-transparent paper on which to make the pen drawing. This paper is laid over the drawing so that it may be seen through and serve as a guide. In making a pen drawing from a printed copy, this can be secured with pins or strips of gummed paper to the back of the sheet that the pen drawing is to be made on and then held up in front of a window pane or glass plate in front of an artificial light and the outline of the printed copy can thus be seen through the white paper and be traced with the pencil. A pen drawing can also be made over a photograph, blue print or photographic enlargement on Steinback paper. After the pen drawing has been made on the photograph, this can be bleached out by being sponged over with the following: Saturated solution of iodine in alcohol, one part; cyanide of potassium in water, two parts; after which the drawing must be washed well. Common blue prints can be bleached out by immersion in water containing a little common soda.

In making corrections on a pen drawing a very sharp penknife should be used. If Chinese White is used for corrections or to line up solid blacks, care should be taken to keep touches sufficiently opaque. The best ink for

pen and ink drawing is Higgin's Waterproof Black Drawing Ink. A very smooth, hand-made white paper is the best for pen drawings; a good grade of Scotch linen paper will do very well. For commercial purposes we recommend a two or three ply Wedding Bristol Board. Some scenic artists prefer a clay coated paper, as this allows erasures with great ease and solid blacks can be lighted up with the point of the knife. There are also process papers, the so-called "Ross Boards," that have a ruled or dotted surface on a heavy clay body which can be scraped for highlights.

The best pen for very fine lines is a Gillott Crow Quill. For all ordinary work, a No. 303 Gillott is most serviceable, and for very coarse lines an ordinary Spencerian writing pen or even a stub pen can be used. For very large work and for putting in flat masses of black, a well-pointed watercolor brush should be used.

In making designs to be reproduced by the photo-mechanical process it is usual to draw them considerably larger than they are to be eventually printed. The best dimensions are to make your drawings to a scale of about twice the linear measurements required; in other words, four times the area. If, for instance, the size of the cut is to be six inches high, the drawing for it should be made twelve inches high.

Straight lines can be ruled in mechanical work, but in all artistic work it should be ruled in the pencil sketch only and gone over free hand in the pen drawing.

There is an easy device for putting a tint over parts of the drawing. It is obtained by charging a toothbrush with drawing ink, holding it face downward over the design and then draw a match or knitting needle along the brushes so as to produce a shower or spray of small black drops of ink on the surface exposed. The parts that are to be kept free from spatter-work must be covered with paper and the part to be sprayed over cut out with a sharp knife like a stencil pattern; this kind of work can be used in flat backgrounds or to represent old stone walls, rocks and some kind of coarse nappy goods. A finer but not so artistic spatter can be obtained in a similar way with the air brush, but as this tool is purely mechanical we shall not aim to describe it more fully.

---

### **PREPARATORY EXERCISE.**

---

An outfit for making pen and ink drawings should consist of the following materials:

Sheets of white, smooth paper.  
A hard lead pencil.  
A soft pencil eraser.  
A ruler with beveled edge (brass lined preferred).  
Gillott's pens Nos. 290 and 303.  
Ordinary writing pens, medium and coarse.  
A small and medium camel hair brush or sable brush.  
A bottle of Chinese White.  
A bottle of Higgins' waterproof black drawing ink.  
A few penholders, a sharp penknife.

Start your practice work by making straight, vertical and parallel lines with slow stroke and with a pen of medium fineness (Fig. 1, Plate 6). In pen drawing there is no particularly preferred way to hold the pen or place the paper. The general rule among pen artists is to hold the pen in such a manner as to give the most freedom and ease to the hand. It is best to have the light by which you work come from the left side. You will soon find out that a stroke carried toward you is the easiest to make, and one away from you is harder to manage. To start with, and while you are practicing, you should try strokes in all directions without removing the paper; later on, when you have obtained the necessary flexibility of the fingers, hand and wrist, you can turn the paper in any direction to make the stroke the easiest. After having practiced the vertical lining, slowly try the same thing over again, now making rapid strokes with the pen, but still controlling it so the lines remain straight and parallel. Next try to do the same kind of lining, starting the line from below and drawing it with a stroke away from you. Having finished your practice work of vertical lines, you should next go through the same exercises with the horizontal lines, then the slanting ones, next the "cross hatched" (Fig. 5), then the short broken lines, also the zig-zag lines, and finally the stippled dots. All this preliminary practice will develop the nimbleness of your hand and stand you a good turn when you commence to make shaded pen drawings.

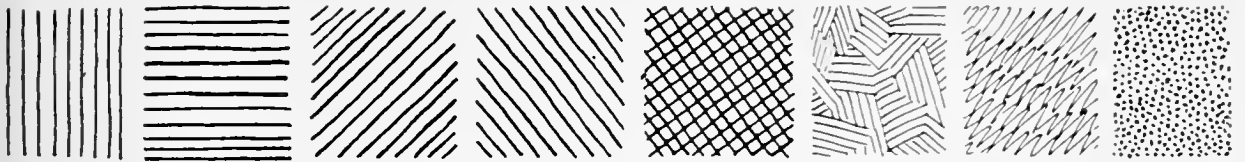
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### **COPYING FROM PRINTS.**

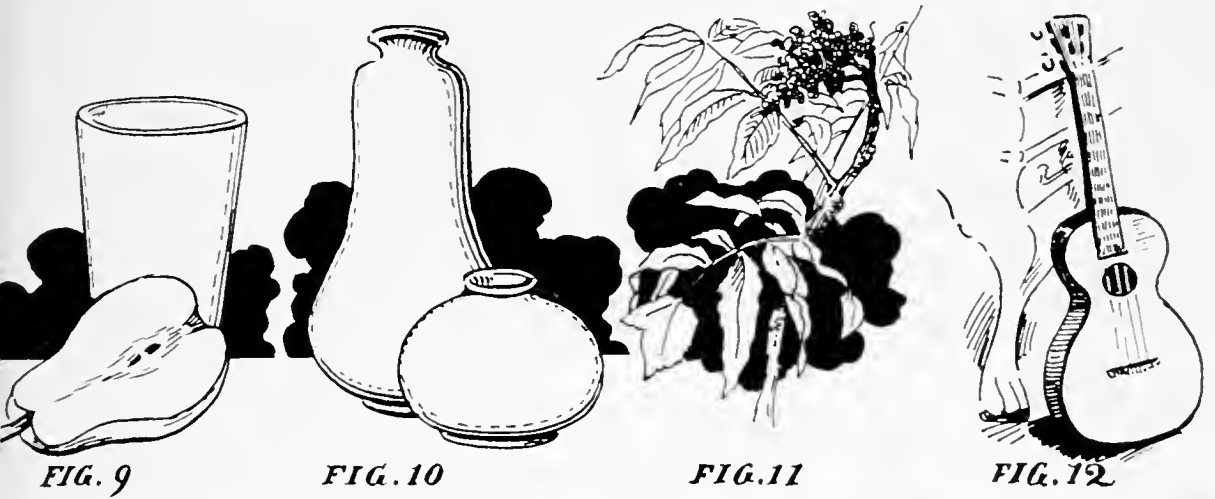
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In order to learn how other artists have obtained certain effects with pen and ink you must obtain a collection of printed reproductions of artistic pen drawings and go to work and copy these, imitating the artist's manner

# PLATE 6.



*FIG. 1*      *FIG. 2*      *FIG. 3*      *FIG. 4*      *FIG. 5*      *FIG. 6*      *FIG. 7*      *FIG. 8*



*FIG. 9*

*FIG. 10*

*FIG. 11*

*FIG. 12*



*FIG. 13*



*FIG. 14*



*FIG. 16*





and strokes, as closely as possible. This collection of prints or studies should start with simple outline work, then show samples of work with solid background and finally a few showing the more intricate and sketchy manner of the accomplished modern illustrators, such as Charles Dana Gibson, Howard Chandler Christie, Montgomery Flagg, and others.

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### **PEN DRAWING IN OUTLINE FROM OBJECTS.**

---

Select some simple objects, such as cups, saucers, glasses, cutlery, fruit, vegetables, etc. Place them on the model stand in a good strong light against a suitable plain background and start to sketch in the objects on your drawing paper, using a hard, well-pointed lead pencil for this work and drawing in light, delicate lines that easily can be erased after they have been gone over with a pen. When you have done this and have obtained as good an outline as you possibly can, paint in the black, cloud-like background behind the object, as indicated in Figs. 9 to 12.

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### **SILHQUETTES AND POSTERS IN PEN AND INK.**

---

A silhouette is a shadow picture of some object or figure made in solid black on a white background. These silhouettes were used a great deal, as family portraits, in the Revolutionary and Empire periods and are of great decorative effect in interiors from those days or on pictorial and decorative cards in Empire style. For the first attempt at this kind of work trace some figures or portraits on a sheet of smooth, white paper, go over the outlines with the pen and fill in black with the brush. If you desire to follow up this interesting and comparatively easy work, you may place your objects or models, if you work from life, in front of a window covered with white transparent cloth (cheese cloth) so that the figure is seen as a bold shadow against the light; then sketch in the outlines, redraw with pen and fill out in black with the brush. In this way you will, with some practice, be able to make creditable profile shadow pictures or silhouettes of your friends and acquaintances.

The so-called poster style is originally derived from the peculiar Japanese manner of making drawings with a pointed brush. This method is

bold and decorative in appearance, showing solid blacks and pure, unshaded whites. This peculiar way of making decorative pen drawing was originated and introduced in England by Aubrey Beardsley a little more than twenty-five years ago, and is still in vogue, being much used for book covers, pictorial advertisements and decorative posters and billboards. Figs. 13, 14-16 show samples of poster designs.

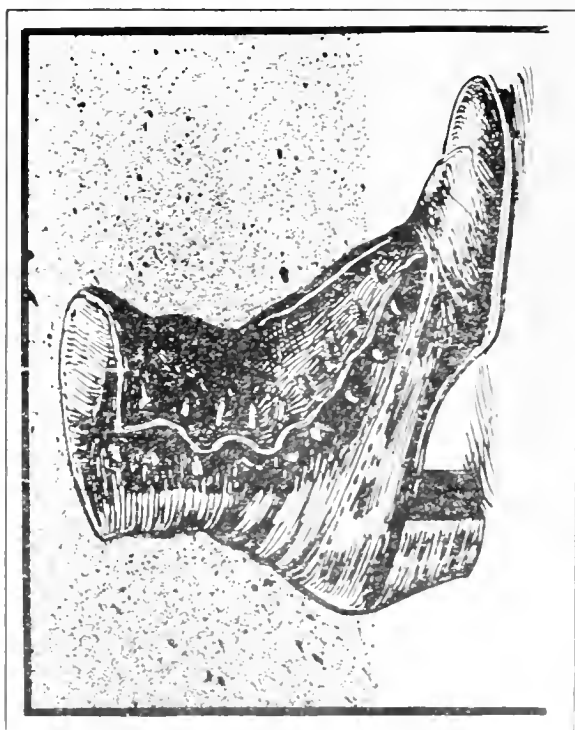
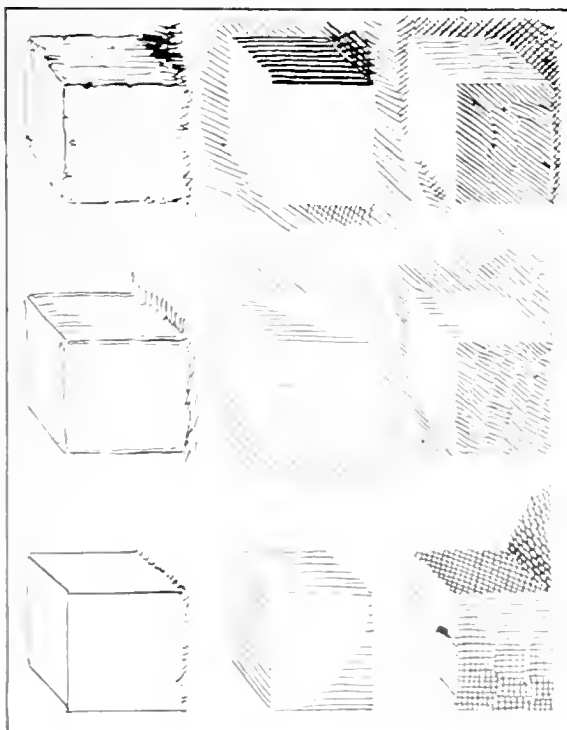
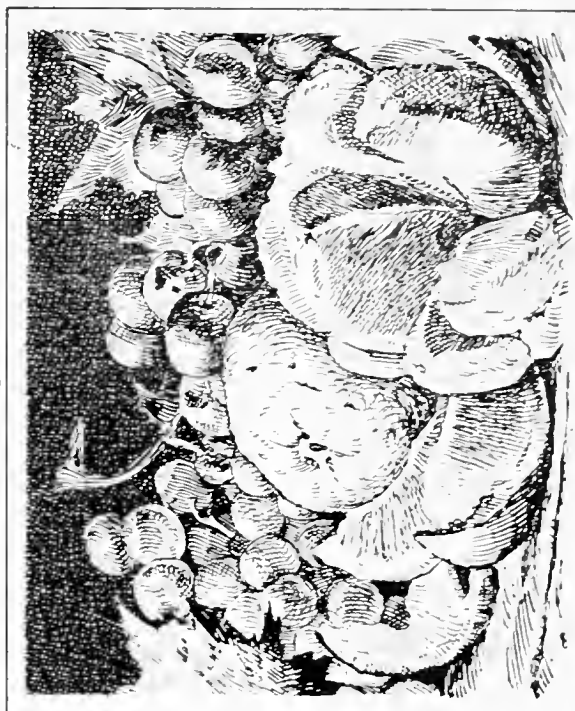
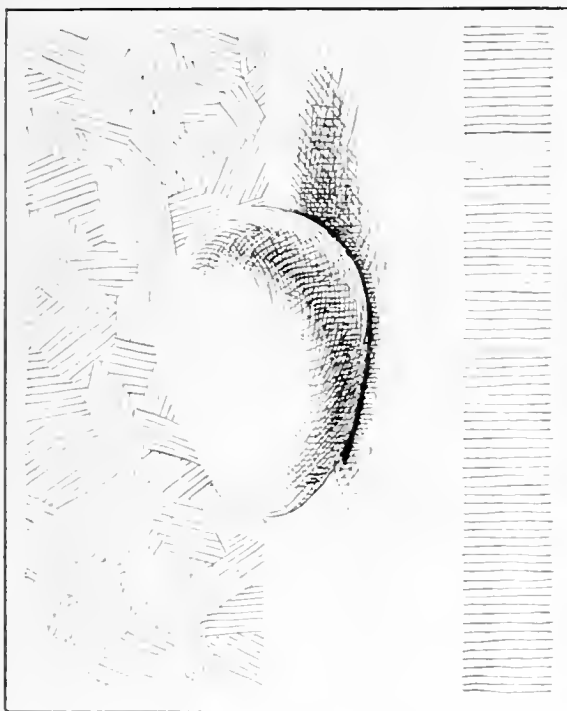
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### SHADED PEN DRAWINGS FROM OBJECTS.

Select different household articles or bric-a-brac for models. Place the articles you want to draw in a good light coming from one side only, sketch in with a hard lead pencil outline and shade with pen. For your next attempts use a square box as a model. Draw it first in outline, then shade in as many different ways, as indicated in Fig. 1, Plate 7. For your next pen drawing use an egg as a model. In shading it try to obtain the correct smoothness and roundness of the surface. You can put in a plain background, formed of parallel lines, drawn in all directions, as shown in Fig. 3, Plate 7. Make in all six or eight different drawings of eggs, single and in groups, all in different positions and light. For your next set of studies use an old shoe, boot or slipper for a model. Draw it with long, vigorous strokes in six or eight different positions against a plain background of spatterwork, as shown in Fig. 2, Plate 7.

For your final model for pen drawing you may select fruit, vegetables, china or glass ware, old books and flowers, etc., and carry out your pen work somewhat in the manner shown in Fig. 4, Plate 7, using different kinds of strokes and lines to indicate different objects and textures, and making different, light or dark, plain or vignettied backgrounds behind the objects, selecting the kind that will give the greatest contrasts and set off the objects in bold relief.

# PLATE 7.





## CHAPTER SEVEN

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### WASH DRAWINGS.

---



ASH drawing is the generally used technical name for painting in black and white for monochrome, done with washes in some transparent fluid. It is used very much, at the present time, for making high-grade illustrations to be reproduced by the halftone process, for card decorations and for making sketches of buildings, interior decorations and originally designed theatrical scenery. This process is, therefore, of great value to the student of illustrating and theatrical painting, etc., and we have here given the most essential rules and directions for the making of artistic wash drawings from copy, objects, and life.

The study of wash drawing familiarizes the pupil with all of the technical methods of water color painting and is, in fact, water color painting in monochrome (one color), and the person who has mastered the directions given in this chapter will find his acquired knowledge and skill in handling the brush and liquid, transparent color, of the greatest help when he comes to make paintings for the trade, which work rests on the same fundamental principles as those written down in the following pages. Wash drawings are reproduced by the so-called "halftone" process of photo-engraving, which in many respects is similar to the process of zinc etching which was explained in the previous chapter. A screen crossed with fine lines is placed in front of the camera when the negative is taken. This is then printed on a highly polished zinc or copper plate, which renders an engraving of great delicacy, showing all the fine graduations and halftones of the original and having a printing surface of small diamond-shaped cubes that leave a network all over the print. To obtain a clear print from halftones these must be "made ready" by the pressman and printed on hard surface paper with a good grade ink.

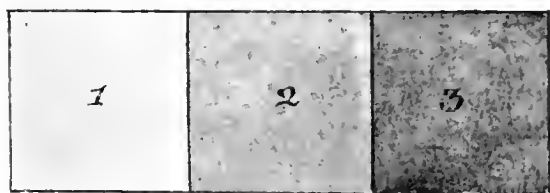
The great charm in painting in washes lies in the beauty and truthfulness of its aerial tones and great range of delicate tints. The production

of this beautiful effect depends greatly upon the fact that the paper on which we paint, being "granulose," that is, upon its surface presenting many little hollows and projections which receive transparent washes of color and thereby maintain an alternation of light in protuberances and half tones in cavities. Such being the case, it is strictly imperative on the scenic artist that he should never lose or destroy the grain by too much work on the same spot, for on the spontaneity of the work will depend the atmosphere and therefore the success of the work. Therefore work rapidly and precisely and don't go over the washes too often while they are still wet. In order to obtain sufficient freedom of the brush and be able to make quick, precise washes, fill a large brush well with color and make a succession of full, large washes rapidly executed first in one, then in different directions. By holding the brush at different angles across the paper different outlines from a ragged, indistinct to a perfectly sharp outline of the washes are obtained. The hand should be lightly rested, in such a manner as to secure the perfect free action of the wrist and the fingers by which the brushes are held. In working over small details the brush, after it is filled with color, should be drawn over a piece of paper, especially provided for this purpose, in order to bring the hairs to a fine point. When laying flat washes do not overcharge your brush with color; if, however, there should be, through mismanagement or other cause, left a floating drop of color, it may be removed by absorbing it with the dry hairs of another brush.

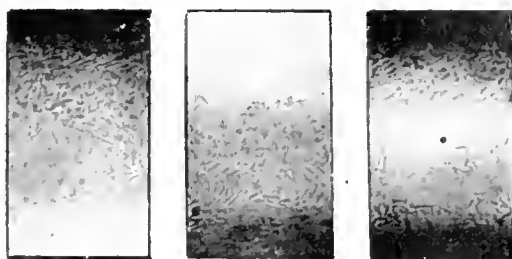
Before beginning wash work the paper should be washed over or dampened with clean water, using a soft sponge. It is advisable that the paper be not too wet or too dry. Do not try to draw with pencil or erase the paper while it is wet.

The washing of the surface assists the artist in making a pure even wash of color and prevents that greasy feeling and spotted appearance that wash drawings made on unwashed paper often have. Always fasten your paper with thumb tacks to a small drawing board before beginning to work and see that paper lies perfectly flat and even. Never begin painting until drawing is absolutely correct; then erase all pencil marks with a soft eraser until they are only discernable. Use plenty of pure, soft water when painting. Use a soft sponge to wipe or wash off all superfluous color from paper or to take out lights from dark tones. Blotting paper is also very useful; soft cotton or linen rag will serve the same purpose. A "wash" is the technical term for ordinary water tinted with color and then by means of a brush spread over the surface to be painted. Dip the brush in water and press this out on your palette; repeat until you have

# Wash Drawing



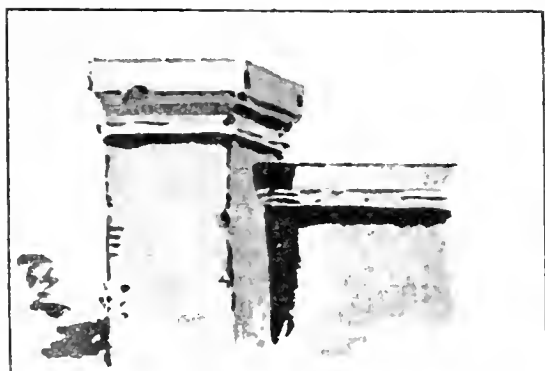
*FIG. I.*



*FIG. II.*



*FIG. III.*



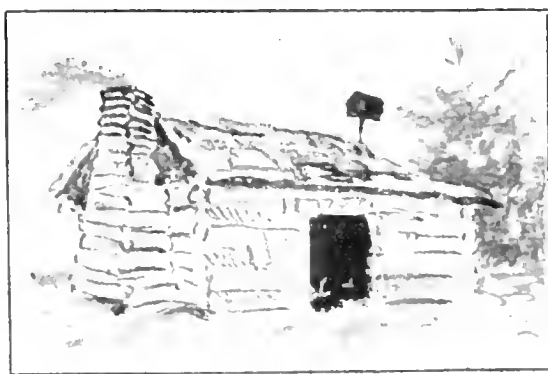
*FIG. IV.*



*FIG. V.*



*FIG. VI*



*FIG. VII*





enough for a wash, dip brush in color, medium (India ink or sepia), and mix it with the water until desired tint is obtained.

After having read this chapter through several times and thoroughly understood the directions given herein, you should start some simple preliminary exercises and try different kinds of washes before attempting to copy other artists' wash drawings.

The tools and materials used in wash drawings are few and inexpensive. They can be obtained at any of the high-class art stores or painters' supply houses, and consist of the following items:

Water color paper (medium rough surface).

Palette of white china, papier mache, celluloid or a white tile or saucer.

Sable or camel hair brushes (different sizes).

A bottle of Higgins' waterproof drawing ink.

A bottle of Winsor & Newton's liquid sepia.

Hard lead pencil, straight-edge, soft pencil eraser.

A bottle of Chinese white.

Drawing board, thumb tacks, stale bread, etc., etc.

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## PREPARATORY EXERCISES.

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Fasten a sheet of water color paper to your drawing board with thumb tacks. Dip your brush in the wash and apply the color with a full brush, working from top downward. Keep the brush full of the wash. Remove the superfluous color left at the bottom of your design by drying the brush on the cloth, by touching this extra color with your dried brush it will immediately absorb all superfluous color. Let your wash stand for a few minutes; it will then be sufficiently dry to allow another wash to be placed over it, if so desired. There are different kinds of washes, which we now shall describe. There is, first and easiest, the "plain wash." Draw a diagram similar to Fig. 1, consisting of three squares about 2x2 inches each. Place a second wash over No. 2 and 3, and then a third over No. 3. Repeat these exercises several times, first making each of the washes very faint, with a great deal of water in the color; next time make them of medium strength, and finally some stronger, so that the last wash in No. 3 appears almost black. This practice will teach you to obtain even, plain washes and how to get fine graduations from light gray to nearly black.

A "graded wash" (see Fig. 2) is one that varies from light to heavy and from heavy to light. It is obtained as follows: Draw three rectangu

lar surfaces as indicated in Fig. 2. Begin at A with the full strength of the black wash, as it comes out of bottle, with brush gradually add water to the wash after each stroke until clear water alone remains in the brush. Now reverse the process at B, beginning at the top with clear water, gradually adding color to the brush until a solid black is obtained at the lower end of surface.

In Fig. 3 is shown a double graded wash, starting with solid black and getting lighter and then gradually black again. Try these exercises a great many times until you are able to make these washes smooth and evenly graded.

Applying a wash to dry paper is called a dry wash; applying it to wet paper, a wet wash. Dry washes are distinct and do not run together; wet washes are soft and blurred at the edges. Both kinds of washes are useful in wash drawings, according to the different textures that you wish to obtain. Generally speaking, wet washes are used for skies, backgrounds, large spaces, etc., and dry washes reserved for retouching and details.

For your next lesson make a series of brush strokes similar to those illustrated in Fig. 3. The first lines are drawn in three separate touches. The others with one stroke of the brush, increasing in width. Copy the four wash drawings, Figs. 4, 5, 6, 7. All four should be painted in four washes. First wash the lightest tint, second the medium tints and shades, third the shadows, and fourth the deepest accents and shadows.

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After having mastered these preliminary exercises and obtained complete control of the tools employed, with a good knowledge of different values of tints and washes, select a series of reproductions of other artists' wash drawings and copy them faithfully. After the completion of these studies select some easy objects like boxes, bottles, vegetables and the like, place them in a good light and proceed as previously taught to make good and true outline drawings of them on medium surfaced water color paper. Next shade them up in washes of India ink, being careful to get your different washes clean, strong and brilliant, and do not be satisfied with a muddy and dirty-looking sketch, but keep on trying until you have a clean, bright, well-rounded and good-modeled reproduction of the object in front of you. Next select some flowers and plants, group them nicely in glasses, vases or jardinières, and make wash drawings of them. Complete a collection of about six different studies of these objects and finally take your colors and other materials with you and go out of doors and commence to make wash drawings from nature, going always from easier to harder

objects. Work for large masses and distinct distribution of light and shade and do not try to include too much in your pictures, of which some should be vignetted, that is, having the main objects strongly shaded and full of details in the middle of the picture and then have this gradually tone out to pure white against the edges. After having made a sufficient number of studies in India ink you should obtain a bottle of light brown or sepia ink, and make sketches in a similar manner in these mediums.

## CHAPTER EIGHT

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### OIL PAINTING FROM OBJECTS.

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IN the previous chapters, we have only concerned ourselves with pictorial reproductions of nature in black and white, and being now in possession of a fair knowledge of sketching and shading, we shall turn to the more difficult problem of depicting objects in their natural colors.

Of all color mediums, oil paints are the easiest to use, as they are more or less opaque, and will allow quite a latitude in repainting and correcting errors. To make good sketches in oil colors it will be necessary to obtain the following materials, which can be had at all leading artists' supply houses:

- One oil color sketch box, not less than 9x12 inches.
- One wooden square palette to fit box.
- Two screw-top palette cups.
- One palette knife (4-inch blade).
- One sketching easel.
- Three red sable brushes Nos. 2, 4, 8.
- One sable rigger No. 3.
- Four bristle brushes (flat) Nos. 3, 7, 12.
- Oil color pale oil, turpentine, benzine.
- Thumb tacks, canvas or academy board.

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### A LIST OF USEFUL OIL COLORS.

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- |   |                 |
|---|-----------------|
| Flake White (large tube).                   | Burnt Sienna.   |
| Chrome, Lemon, Medium, Deep, Orange Yellow. | Raw Sienna.     |
| Chrome Green, Light, Medium, Dark.          | Raw Umber.      |
| Antwerp or Prussian Blue.                   | Van Dyke Brown. |

Ivory Black.  
Cadmium.  
Permanent Blue.  
Yellow Ochre.  
Scarlet-Lake.  
Indian Red.  
Light Red.  
Mauve-Purple.

Aureolin.  
Golden Ochre.  
Cobalt Blue.  
Vermillion.  
Sap Green.  
Emerald Green.  
Prussian Green.  
Zinnabar Green.

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## A LIST OF NECESSARY COLORS.

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White, Black, Yellows, Reds, Browns, Blues, Purples, Greens.

With the exception of white, black and purple, two or three shades of each of the other colors will be found very convenient in most cases. If you desire to prepare your own sketching canvas, then obtain a good quality of six or eight ounce duck or drilling canvas; stretch this on a frame and give it two or three coats of white lead mixed in oil and diluted with sufficient turpentine so that it makes a perfect flat surface without a shine when coated on canvas. When dry, this prepared canvas can be rubbed slightly with sand paper so as to take all superfluous roughness off, and then cut into convenient sizes.

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## PAINTING IN OIL.

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The foremost masters of scenic painting have held the opinion that the greatest difficulty in the art is to learn to see. Be this as it may, it is obvious that we cannot hope to represent the appearance of anything with exactness that we are not able to see correctly. Further, it will be readily understood that before we can analyze the complex appearance of landscapes, the ever changing color of the mobile sea or the subtle forms and tints of the human figure, we should be able to realize the appearance of a simple object. Now that we have considered the best way of learning to see correctly and are acquainted in some measure with the nature of our materials, we will set about our first attempt at painting.

Before attempting painting in oil of objects you should procure some good studies in colors and copy these faithfully. It is obvious that before we can paint a difficult subject we must begin by mastering the simple ones. We will, therefore, try to paint an egg, placed upon a piece of white paper.

Place a sheet of white paper behind the egg and be careful that the light only strikes it from one direction (preferably, from the upper left hand corner). In a previous chapter we told you all about the lights and shades on simple subjects and gave you the technical name of the different tints. We shall use the same terms in this lesson. Fasten a piece of sketching canvas 9x12 inches on your drawing board, put this on your easel at a convenient height, sit or stand in front of it and sketch the outlines of egg with charcoal on your canvas; rub partly out, correct and redraw with a hard lead pencil. We shall use raw umber and flake white to give all the graduations of tints from deepest shadows to highest lights, as found in the subject before us.

First mix sufficient umber on the palette, using either a large flat bristle brush or the palette knife, with a little white until it has a darkness that appears the exact value or tint of the deepest shadow under and to the right of the egg.

Fill a flat bristle brush with plenty of color and lay it on the canvas the correct tint of the shadow. Then mix a tint a trifle lighter for the deepest shade on the egg and lay this on in a similar manner, always using plenty of color. From the deep shade proceed to the half shades, lay this on this time using some more white in colors, then go to the halftone, using still more white, and finally paint the highlights with pure white; then find a tint of umber and white that matches the value of your background and another that matches the white paper your egg rests on and paint the rest of your canvas over with these tints, remembering that none of them must be pure white, but should be subdued to the brilliancy of the highlight on the egg. The tints should now be rubbed into each other with a clean brush.

Outline of egg should remain quite sharp and be a true egg-shaped oval. Tints on egg from highlights to deepest shade should be soft and so modulated that they scarcely show where they blend into each other. Outlines of shadow on table should also be soft. After having obtained a nice pleasing effect in your painting, remove canvas from board, set away to dry and then use two eggs for models placed side by side in a similar way as before, but in a different light, and proceed to make an oil sketch as before. For a third painting use a group of four eggs for models. For our

next model let us take an ordinary green apple or a green cucumber, pear or tomato; place it on a white sheet with a white background behind it as when we painted the egg. First make a careful drawing of the fruit, then study its coloring carefully before setting the colors on the palette. For a green fruit such as mentioned above you will need the following colors: Flake white, chrome yellow, ochre, burnt sienna, burnt umber, permanent or cobalt blue, Antwerp or Prussian blue, emerald green.

First mix your paint for the dark shadows that the fruit throws on table; notice that this is darkest near the object and softer and lighter farther away. You will need burnt umber, emerald green and yellow ochre for the shadow and you will use them in a smaller or larger quantity in all of the other colors. For the deepest shade on the fruit, about the shade of the shadow should be used, only lighter and a trifle greener.

For the halftone, Antwerp blue mixed with chrome yellow and modified with flake white will form a nice green, which should have a trifle of yellow ochre added nearest the highlights.

The highlights can be painted with flake white tinted around the edges with a little blue. The background and table can be painted with a tint of mixed burnt umber, yellow ochre and flake white. Finally blend the tints into each other where this is needed and do not have the outlines of apple too sharp. For your next study select two green fruits as models and after having completed an oil sketch from them, take two yellow fruits, such as lemons, oranges, bananas, grape fruit, yellow plums and so forth, and make several studies from these models, using now a dark brown covering on table and hung behind fruit for background. The nappy side of different colored cotton flannel makes pretty good material for monochrome backgrounds.

Your next problem will be to make oil sketches from objects with smooth, shiny surfaces, such as bottles, glasses, china, brass and silverware. For your first model of this kind select a plain bottle. If you choose a green one you can put same color on your palette as used when painting green fruits, but you must look at bottle and notice that highlights are real reflections of source of light in your room, be this a window or lamp. To paint this you will need additional colors as the occasion may demand. Also note that highlights are a great deal stronger and more marked than on fruit and that shaded side is broken up with a whole lot of vari-colored reflections. This will make the painting of objects harder than those we have just mastered, but if you try hard and often enough you will, at last, be able to make satisfactory sketches of these kind of objects.

## LANDSCAPE SCENERY PAINTED IN OIL COLORS.

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The sketching in oil colors from objects and still life should have given you sufficient practice in handling the new medium so that you now can take your sketching outfit out of doors and make creditable studies from nature in the open.

Before starting on your first sketch read this over time and again until you almost know the words by heart, and are absolutely sure that you have fully understood all of the hints and directions given herein. Then, when you finally do go out, leave your sketching outfit home the first time. This may sound like a paradox, but it is nevertheless good advice. Just go out with the intention of selecting the view or views you intend to paint. This sounds so very easy, but it is not always so, especially for the beginner, who knows very little about composition and just what kind of views will make pleasing pictures easy to paint. On this hunting expedition for paintable scenes it would be a good idea to have a cardboard about 10x12 inches with a square opening about 6x8 inches cut out. When selecting a view hold cardboard up in front of you and raise it up and down and shift it from right to left until you have obtained the best view of the scene before you. You can at the same time get somewhat of an idea of how the scene will look when properly painted by studying the bits of landscape seen through the cut-out.

Select a plain scene with a few details but with a large mass for your first attempt at sketching from nature. There are four things necessary to the making of a good outdoor sketch: COMPOSITION, VALUE, COLOR and DRAWING. The composition of a picture is its design or arrangement. Here are a few rules as to correct composition: "Do not place your sky line in the middle of the picture. Let it be either above or below. Do not place your principal objects directly in the middle of the picture nor against the edge. Do not crowd your canvas. Omit every detail that does not add to the interest of your study. With these ideas in mind, draw in your subjects with as few lines as possible. Omit details and let your lines indicate the edges of masses of color, sky, earth, etc. Look well to your proportions and remember that objects in the distance are small compared with those in the foreground.

In thus carefully studying your subject you must have noticed certain contrasts of light and dark masses. These are the values of the picture and are as important as is its composition. You will find the sky to have the



lightest value, the ground the next lightest and the trees and upright objects the third lightest and the shadows in the foreground the darkest value.

The careful noting of the values in your picture suggests the colors that you must use. Choose light, bright colors for the sky, warmer, richer tones for the foreground and cooler colors for the distance. By cool tones are meant those mixed with blues or grays; by warm tones those mixed with red and yellow. A clear sky has three bands or zones of color that are softly blended into each other. Violet in some of its varied tones near the horizon, above that green, and above that again blue. The clouds near the horizon are yellowish or pinkish and grow whiter as they ascend higher towards the zenith, but should never be painted pure white, which makes them cold and chalky.

Load your brush with plenty of color when painting clouds and put them on the canvas loosely and fluffy, with soft and ragged edges. Let us look at the trees for a moment. Commonly speaking, they are called green, but green is always modified with some other color, never black; if a deep shadow appears solid black to your untrained eye, hold up a small piece of black velvet, tacked to a stick or board, against the shadow that appears black to you and you will now observe that it is several graduations lighter than the dead black velvet. Your canvas must be a record of what you saw at the given time; paint what you see, striving ever to see more and better. Paint loosely with lots of color in the brush, avoid all hard edges, paint quickly, omit all small details and paint in masses. Do not paint too dark. Remember that everything out of doors is light. Do not have your study too chalky and pale, have it full of brilliant, harmonious colors. Do not use thinners much in your colors, use them as they come out of the tubes and mix your tints well on the palette before you put them on the canvas. Compare them with the colors in nature that you are trying to imitate and be sure that you are right in tone and value before painting them in place. Use sketching canvas of rather rough texture for outdoor sketching in oil.

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### A FEW WORDS ABOUT YOUR COLORS.

Primary colors are such that cannot be made by mixing two or more colors together. They are red, blue and yellow.

The colors obtained from mixing any two of the primary colors are called secondary colors. They are purple, green and orange. Red and blue give purple; blue and yellow give green; red and yellow give orange.

By mixing any of the secondary colors together we obtain what are called the tertiary colors. They are citrine, olive, orange and russet. Orange and green give citrine; green and purple give olive; orange and purple give russet. By adding white to any of the colors you can obtain a tint of that color; by adding a mixture of the three primary colors you can obtain a shade of the color.

The most useful colors in landscape painting are lemon, chrome, golden ochre, cadmium, vermillion, Venetian red, Indian red, crimson lake, rose madder, burnt sienna, burnt umber, Van Dyke brown, Prussian blue, cobalt blue, permanent blue, emerald green, purple lake mauve.

For your first attempt at painting from nature select a plain view of sky and earth, for instance, a sweep of prairie or a naked hill against the horizon; paint in large, bold masses. Make three sketches of this scene, one on a cloudy day, one late in the afternoon on a sunny day and one at sunset time. Work quickly and loosely.

For your next sketch select a view with large masses of trees in the middle distance and a plain foreground; make three sketches of this study as indicated above.

For your next problem select a scene with one or more larger trees in the foreground, paint in masses, obtaining the correct form and color but omitting small details. Paint three different sketches of this study as before. Finally select a view including houses, water or rocks and with interesting objects in the foreground.

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## PAINTING IN OIL OF INTERIORS.

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The painting in oil colors of interiors should not prove to be so very difficult to the scenic artist who already knows how to make good and artistic sketches in oil from objects and nature. You must remember, however, that out of doors it was all air, light, sunshine and bright and brilliant colors, while interiors are often dark and dim and the objects have some of the plains brilliantly illuminated and others submerged and half hidden in shadows that always, no matter how deep and dark, should be painted transparent and not look like solid blackness.

All objects in an interior are also at a great deal closer range than in a landscape and it becomes, sometimes, difficult to a beginner to observe the color changes that even the shortest distance lends to all objects, and many

a person that could paint sketchy and loosely when painting a landscape, have executed interior paintings that were hard of outline and devoid of atmosphere. Before starting to paint interiors from nature obtain four or six color prints or studies of interiors and copy these faithfully first.

The preliminary drawing for an interior sketch must be absolutely correct and all objects given in their exact proportions and right foreshortening and linear perspective. No amount of clever painting will hide a faulty drawing in an interior, so therefore take lots of patience and care in obtaining an absolutely correct drawing of the room that you intend to paint before you start to lay on your colors. The source of light should be considered well and if there are windows on both sides of the room and illumination is very spotted and uneven, it may be a good scheme to darken the windows on the side away from the sun. If direct sunlight falls in the room it heightens the illumination a great deal and makes the study a good deal more attractive and picturesque, but it also makes it a great deal harder to paint and the beginner had better content himself with a soft, diffused light coming from either right or left side. The correct color perspective is very important in a good interior sketch, but a great deal harder to observe than in the open with its long distances.

Observe that the farther the object in the room is from your eye the more subdued the coloring is and in rendering of such objects you should use more white in your tints and paint loosely with soft outlines and not too many details, while the nearer the objects are to you the stronger the coloring and the high lights should be impasted with a great deal of color in your brush and have sharp, well-defined outlines in the lights, while the shaded parts should be painted with less vigor and with softer outlines. Another important thing to observe in interior painting is the different texture that the objects have. You should try to imitate this texture with the different strokes of your brush, so that, for instance, a fur rug looks hairy and fuzzy, and the top of a mahogany table looks slick and shiny, and so on. Do not put in too many minute details in your sketch. Content yourself with broad, heavy masses that give the most artistic appearance. Of course, there should be more details in the near foreground, less in the middle distance and least in the far distance. Start your interior painting with something very simple and plain for your first model, for instance, a wash stand, bureau or simple table standing against a plain wall, with possibly a simple mirror or black and white picture hung over it.

Be very careful with your preparatory outline sketch, being absolutely sure that it is correct in proportions and perspective before you start to

paint: then commence to block in your painting, avoiding all details, before applying them on your canvas so as to be sure that they correspond exactly with those of the scene before you. Have some turpentine when changing colors, cleaning the surplus color off on a small rag, and in another cup some that must be kept perfectly clean to thin your colors with when this is required. Make it a rule to have your colors a little thinner and cooler in the shades and the background but thicker and warmer in the lights and the foreground. Mix first a general tint for the wall, mix some of this tint with white for lighter places on the wall and some with Van Dyke brown, dark blue or burnt umber, all according to the local color of the wall, for the darker part of same.

When laying on the color of the wall use a vigorous stroke, running the brush in different directions, in order to break up the surface well, but be sure not to get much, if any, of the background color smeared in over and covering the outlines of your objects. When the wall is finished nicely stand back and compare your painted wall with the real one and see if it does not need strengthening in the shades or lightening of the light places, or vice versa. Then start the painting of the furniture. Mix first the general tint of the woodwork and also a darker one for the shaded places and a lighter one for the planes that the light strikes. Paint in boldly and vigorously, defining your lights and shades strongly. Next paint the floor that better be bare in first sketch. Be sure that boards in floor lie back in correct linear perspective. Set your sketch away for a day or so and when first painting is perfectly dry, rub over the surface with a little pale linseed oil and start to put in the high lights and all fine and sharp details, loading your brush well with color. A small bristle brush or a pointed camel's hair brush for the finest details should be used for this work, but do not fill the whole picture with details that will give your sketch an amateurish salt and pepper look; only put very strongest high lights and the most prominent details in finishing the sketch. If first sketch when completed does not satisfy you, make another, profiting by the experience gained in making the first. Do not stop until you have as perfect a sketch as you possibly can make at the present stage of your art education. This is one of the secrets of successful art work, to develop your artistic conscience, so to say, until it does not allow you to leave anything and call it finished before you are perfectly sure that you cannot improve the work in hand any more. This means to make the best preparatory outline sketch you can, to paint in colors truest to nature and to get your values and textures as correct as possible.

For your next study place a few more pieces of furniture in the room and include perhaps a door or a corner of the room in your sketch. Try to paint this sketch in the the two different illuminations, for instance, on a gray day and on a bright one with the sunlight streaming in through the window, and note the difference in the color effects.

For your next model select a more pretentious and richer furnished room, including this time a window in the sketch, and note carefully the brilliancy of the out-door scene seen through the window and the comparative darkness of all objects in the room seen against the source of light.

For the next sketch select a reception hall, showing a stairway, as a model. If you cannot obtain these motifs for sketches in your own house, don't use that as an excuse for not making them, but visit your friends' and acquaintances' houses until you find the correct model for your studies.

When ready to paint your fifth sketch obtain permission to sketch the interior of some large hall, church or theater in your town. Make in all three or four sketches of large rooms. This work will be more difficult than anything you have yet attempted, but it will pay you well to execute it with the greatest care possible, as a very good knowledge of form and value can be obtained from the study and careful execution of these problems, and by the continued practice and close observation you will greatly educate your eye and hand and prepare yourself well to the far harder task of painting good pictures in water colors, which are not nearly as easy to handle as the more or less opaque oil colors.

## CHAPTER NINE

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### WATER COLOR PAINTING FROM OBJECTS.

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FTENTIMES the scenic artist receives a sample order for water color sketches of scenery, and we have therefore included a short treatise of this particular kind of work. It is more difficult to paint good sketches in transparent water colors than it is using opaque oil colors as a medium, as the latter will stand more working and correcting than water color. We must therefore caution you to pay close attention to the rules and directions given here and do the work neatly and carefully when you come to put same into practice, and do not forget that knowledge is a grand element of decision in all things and no less so in scene painting and we should neglect no means placed at our disposal of attaining that element.

The great charm of water color painting lies in the beauty and truthfulness of its aerial tones and the greater or lesser transparency and brilliancy of the pigments. The implements and materials used in water color painting are few and simple. They are: A few china tiles, saucers or palettes, a piece of soft sponge, an eraser or an old handkerchief (silk) and a piece of chamois skin, a penknife, a drawing board, paper, brushes and colors.

The paper should be a good grade medium rough surface (Whatman's water color preferred); they can be had at any first-class art store or painters' supply house. The brushes are red sable, small and well pointed for detail work, medium large for masses, and one or two large flat brushes for working skies or dampening the paper when this is found necessary. The flat brush can be camel hair; a flat bristle brush can also be used to advantage where a strong heavy tint is desired. The best colors to use for water color painting are moist colors in half pans. A splendid kind of these are manufactured by Winsor & Newton and can be had at all leading dealers in artists' materials. Below we have named some of the most useful and inexpensive water colors to be used: Antwerp or Prussian

blue, chrome orange, vermillion, burnt umber, Indian red, cadmium, yellow medium, light red, mauve, emerald green, light red, chrome yellow, indigo, raw umber, sap green, Naples yellow, raw sienna, rose lake, permanent blue or cobalt blue, Prussian green, burnt sienna, permanent blue, Van Dyke brown, Alizarin crimson, yellow ochre, gamboge, one tube or bottle Chinese white.

Always use the face side of your water color paper to paint on. You can find this by holding your paper up between the light and the eye; if the water mark can be read from left to right, you have got the face side of the paper toward you; if not, turn the paper around and work on the other side. If you work large sketches, it is better to dampen your paper first, as it otherwise may "cockle" up for you and be troublesome. Small partial lights can be scratched out with a penknife or eraser or by slightly wetting the space with a brush charged with clear water; when the spot is nearly dry rub smartly with a silk handkerchief drawn tightly over the finger. India rubber can also be used for this purpose. Chinese white is very useful for small lights in the foreground. These lights may be laid on in the desired forms with solid white, which when perfectly dry may be tinted or flashed over with the color required to produce the intended effect. Whenever opaque tints and details are required these can be obtained by mixing liquid Chinese white with the required tint, but this method should be employed only in foreground of picture. When painting in water colors the hand may be lightly rested, but it must be in such a manner so as to secure perfectly free action of the wrist and fingers by which the brush is held. In laying on the tints be careful to begin by laying them on boldly and at once close to the outline and do not be repeatedly touching by dragging the brush timidly over the paper backward and forward; the effective handling of the brush requires speed, especially in working some kind of foliage and in covering large spaces with flat, even masses of color.

You should practice a great deal on making quick and even washes before beginning on the regular problems given below. Also practice graduated washes, starting with the solid color, as it comes out of the tube or pan, and grading it nicely with more water than color till the faintest tint of the original color is obtained. It is to be observed that as a general rule the brush should be tolerably full of color in order that it may flow freely, for upon this the cleanness of the work depends. Always be sure to have a correctly and lightly drawn pencil outline sketch of your subject before you attempt to color it. Crumbs of stale bread or a very soft sponge rubber or art gum can be used to efface the pencil lines if these should show after the color work has been completed. The great end to aim at

in all water color work is the preservation of the clearness and brilliancy of the tints and to avoid too many corrections. You must not expect to always obtain the desired effect in the first wash, but often will have to wash over several times and in many cases with a different color each time before you obtain the desired shade and effect, only be sure that you wait between each wash until the former is dry. Be sure to have your light bright enough. They are easily subdued if too bright, but you cannot get brightness out of dullness. After having practiced large even washes and graduated tints for some time, you should make yourself a color chart. Select a large sheet of color paper and lay it out in a great many small squares. Down in the middle square paint each of your colors, as they come out of your tubes or pans; name or number these colors, corresponding with their printed names. In the squares to the right of your first color mix that color with each of the others that you have and in same order as you have painted them down your middle squares, putting each tint into a separate square. In the square to the left of your first color mix light tints of that color and tints of all the rest of the colors you have down the middle square, and repeat the same process until you have a combination of solid colors and tints of all of the colors that you have in your color box. Such a color chart, if correctly carried out, will be of greatest help to you to find the tint that you need in order to reproduce a certain color in your future work from nature. After having practiced large washes and made your color card, you should be obtaining color reproductions of some easy water color study (flower or landscape preferred), and try to copy them as faithfully as you are able to. Repeat this practice several times, selecting each time a more difficult study to copy, and be sure that your studies are artistic and in good harmony, otherwise you will profit but little by copying them.

Having now acquired some knowledge of technique of water color painting, we will proceed to paint from model. For your first subject select an egg. Place it in a strong light on a light green or brown piece of cloth large enough to be drawn up behind it and tacked to a box so as to form a background for your study.

Start work with a large, well-filled brush. Egg should previously have been sketched in, in the usual way, first with charcoal and then redrawn in a clean, fine pencil outline. Lay in outlines of shadow that egg throws on table while background color is still wet, so as to obtain a soft outline of shadow; after this is dry, strengthen with a deeper shade in middle and close to egg. Paint lightest tint in egg first and when still damp go to the darker shading in order to obtain a good graduation of the tints and a



perfect roundness of the egg. Make another sketch of a collection of two or three eggs and proceed as before. Next paint an apple and a potato or other seasonable fruit and vegetables easy to reproduce in colors. For your last fruit, study oranges, bananas and grapes, grouped together.

Next you must try to reproduce in water colors objects with shiny surfaces, such as glassware, tin pails, bottles, crockery, etc. Your last problem will be to paint plants and flowers in water color. Proceed as taught in previous chapters dealing with flowers and plants, using first bunch of leaves, then single flowers and finally a bunch of several flowers in a vase, glass or crock, for models. Be very careful with your outline drawing and be sure that it is absolutely correct before you attempt to lay your colors on. Keep your tints clean and distinct, put them in boldly and quickly; do not muss your colors up and do not paint one tint on top of another until the underlying one is absolutely dry, unless a soft and graduated tint is desired.

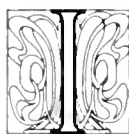
## CHAPTER TEN

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### WATER COLOR PAINTINGS.

#### Interiors.

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IN the previous chapter we have taught you the principles and technique of water color painting. We shall now put our acquired knowledge to the test and try to make a series of interior paintings, using moist transparent water colors as a medium. This will be harder to accomplish than the one we had before, when we used the pencil, the pen or the brush in oil colors.

When using transparent water colors, you must work quickly and with precision, especially so when laying on the large, even washes. Previous to starting the work described in this chapter you should select a good-sized sheet of good, not too rough, water color paper and a good-sized, well-formed camel hair brush. Then moisten paper slightly and mix up a generous supply of color or tint and start from the upper left corner to cover the paper with even, large washes, filling the brush generously every time, dragging it lightly and swiftly over the paper, giving the washes a slant from left to right of about 45 degrees and letting each succeeding wash lap the former one slightly so as to take up any drippings of surplus color that may have collected at lower edge of previous wash. Keep this preparatory practice up until able to cover the whole paper with perfectly even washes that show no laps and no difference of strength in tint.

For your first attempt at sketching interiors, copy some good water color reproductions of not too difficult interiors. These color prints can be obtained from the catalogues of a great many of the leading paint manufacturers and wall finishers. Try to imitate the style and artistic workmanship of the originals as closely and as conscientiously as you can. Having obtained the necessary practice in making large, even washes and copying of interiors painted in water colors, you should now select a very plain interior as a model for the first water color sketch.

Remove most of the furniture and pictures from that part of the room you decide to draw. Have the light come from one side and from one source only. Do not select a room with figured wall paper for your first model. Plain walls are easier to paint in water colors. Put a sheet 8x10 inches of good quality medium surface water color paper on your drawing board. You may paste down the edges to prevent the paper from curling up if you wet it much. First draw outlines of everything you want to paint, using soft well-pointed charcoal for this preliminary work; wipe out partly and redraw, correcting errors and being careful about having everything in correct proportion and perspective. Having secured a perfect outline sketch, clean off wall, and redraw faint charcoal lines with a very fine and precise pencil line, using a hard lead pencil. Give paper a final clearing with art gum and stale bread crumbs. Get your water colors ready, mix large tint in a saucer or on a porcelain palette, and have a small slip of water color paper handy that you can try your colors on before putting them on your drawing.

Now scrutinize the wall before you well, note its color in the middle tints, mix a tint accordingly and a darker tint for the shaded parts, in the lighter parts use middle tint diluted with water. Put this on first and while wet lead middle tint into it and finally darker tint, all according to the way they appear on the wall before you.

Use plenty of color in your brush and work rapidly with a rather large brush. Clean off surplus of the colors with a small, wet sponge if you should happen to run over outlines of furniture or other objects.

Next study color of floor, if this is shown in your sketch, and lay in ground lines, omitting details. When wall and floor are dry, select a small brush and start to paint small objects such as doors, pictures or wall furniture, etc., leaving white paper show greatest highlights and laying in your light tints and middle tints next. Wait for the colors to dry before you put in deepest shadows. Be sure that your colors match up perfectly with the model before you and occasionally stand back from your painting and look at it and the room you are painting, at the same time noting where your color needs strengthening and retouching. Having finished your water color picture, rearrange room, putting in a little more furniture and hang another picture or two on the walls. At your next opportunity, try over the same picture again, this time benefiting by the experience you have obtained and correcting the mistakes of first sketch. For your first model, select a corner of a room furnished a trifle more elaborately, spend a great deal of study on obtaining the correct foreshortening and perspective and bear in mind that no amount of paint will correct a faulty drawing. Try

to keep your washes clear, distinct and brilliant. Where tints are soft, they should be blended into each other while still wet. In this sketch you can impaste your highlights, using Chinese white to make your highlights opaque and coloring the white until you have obtained the correct tint. This must only be done sparingly and only in a very highest catchlight on brass, gilded molding, chinaware, polished furniture and like objects with smooth, shiny surfaces. Having completed your picture to your satisfaction, set away and wait for your next opportunity to paint. Then rearrange furniture in corner, adding a few more pieces, and proceed to make another water color sketch of the model, trying to make it still better than the first.

For your last problem, you should sit well back in a large, elaborately furnished room. A hall or church interior may also be selected. Take a position where you can see three sides of the room and possibly a window. Proceed as directed above and make two sketches at different positions of these interiors. Before practicing on making water color sketches of interiors, we should advise you to select several pieces of furniture, placing these against a white sheet, and make several water color sketches of them, omitting any background and only leaving a slightly tinted and vignettted wash under legs.

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## SKETCHES IN WATER COLORS FROM NATURE.

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In the former lesson was taught the painting of interiors and water colors, and through the practice obtained making studies required for the lessons the pupil acquired a good knowledge of mixing tints and improving his general technique, which will help him a great deal when he starts on the more difficult task of reproducing the flighty shades and brilliant tints of color seen in the open.

In the painting from nature, out of doors, we should advise you to obtain a small color box, containing the colors and other materials, together with a portfolio made of heavy pasteboard and not smaller than 8x10 inches, to the outside of which he can fasten the water color paper with thumb tacks; a light sketching easel on which the sketch can be placed while being painted is a very handy thing to have, as it allows you to walk away from your work and inspect it from a distance, while working at the sketch, a practice which enables you to observe faults in the work which you might not have noticed at a close inspection. When working out of doors young sketchers often make the mistake of having their landscapes too green (not too blue). They know, for instance, the local color of trees and paint them

so, forgetting that the trees themselves assume all kinds of hues, according to the light cast on them and the density of the atmosphere through which it is seen.

A few words as to the best materials: Watman's drawing paper, made up in blocks, is decidedly preferable for water color sketching from nature. The rough grain of paper helps the atmosphere and furnishes the light in the foreground in the most ready way. The size should not be less than 8x10 or 8x12 inches. The brushes should be of sable and a larger brush should be reserved for clouds and skies. The colors should be moist water colors (Winsor & Newton's preferable). A tube or bottle of Chinese white, a hard pencil for sketching the outlines of a scene in and a water bottle, a piece of white paper to try the tints on and a couple of rags to clean the brushes on will complete your outfit. A piece of cardboard cut out like a frame and held in front of your eye will help you to determine what should be included or excluded in your sketch in order to obtain the best and most picturesque view of the scene selected.

When sketching from nature you must observe the following principles:

- |                |              |
|----------------|--------------|
| 1. ATMOSPHERE. | 3. CONTRAST. |
| 2. KEEPING.    | 4. VARIETY.  |

The atmosphere out of doors changes with the weather and the time of day, and also changes all colors and tints in nature, which look different under clear skies than on cloudy days, different later in the afternoon than in the middle of the day. These changes of atmosphere and color should be studied well by the pupil before he attempts to paint from nature.

The first care of the sketcher, after securing his pencil outline, will be to prevent confusion in the various distances. Sky and a far distance should be kept in soft, light tones; middle distance somewhat warmer and richer colored, and the greatest strength of color and light should be reserved for the foreground. When your general outline is finished, get a tint color over everything. Use as little water as possible; this saves time in drying and gives a bolder effect at once. Cut out the white paper as soon as you can, except in the sky and the highlights in the foreground. Begin tinting with the distance and work toward the foreground, or you may get the distance too strong. Always begin with a tint of blue, however pale, as it imparts confidence by securing at once some resemblance to the atmosphere, which is generally more or less blue in the remote distance. It is good practice to paint the first two or three of your water color studies from nature in monochrome, using either sepia brown, light green or blue for the color.

Passing on to the use of the more positive colors, your next object is to get the light shadows in and on them show the details. The colors should be put in at once, and afterwards should be disturbed as little as possible. You must not expect to get your effect by one wash only, as this cannot be done in water colors. Sufficient time must elapse between the washes, allowing each to dry thoroughly, and be very careful about your first or under tints—remember that these will be your lights. Have them bright enough. Have them pure. Have them flat or they will not show up well when shut in by the after tints.

The next important point in a sketch from nature, and that gives it character and value, is contrast. Power does not consist in strong and gay colors, but is entirely the result of proper combinations and contrasts. Two contrasting tones must be brought together and the power of each will be felt. You should already be aware of the three principal contrasts: Blue opposed to orange, red to green, yellow to purple, and carrying out this principle of opposition, you will obtain an endless variety of contrasts.

Another source of pleasure to the eye of works of color is variety. You may take it as a rule that to continue the same tint over a space of any size, without varying the strength of it, is sure to produce tameness and insipidity. Lastly, never touch your original sketch after leaving the spot. What you put down while on the spot where the sketch is taken is a nature lesson to you, and if you touch it away from her influence, you may obliterate the results that were her valuable instruction. We will now go out into the open and commence our first sketch in water color from nature. For our first subject, we will select something easy, as, for instance, an open prairie, without any prominent objects in the foreground and showing a vast expanse of sky and far distance. Select a day when the skies are showing distinct clouds, as this is easier to paint than a plain sky would be. Dampen your paper slightly before putting in the sky in bold, quick strokes, with a large brush well filled with color, noticing that the white parts of your clouds are pure and lighter the nearer they are to the zenith, and get more yellowish or even reddish and purplish the nearer they come to the horizon. After your sky has been finished satisfactorily, start on the underlying tints of your far distance, which will take more or less of the bluish hue; gradually work toward the foreground, introducing greens, yellows, red, purples or browns, as you see them in the landscape before you. After the whole sheet has been covered with tints let these dry thoroughly before starting on the second painting, strengthening up the tints and putting in details here and there, loading your brush well with colors when working toward the foreground, which should show the greatest variety of colors

and the most details. Now step away from your sketch and then look at it from a distance, noticing where it is lacking in strength and brilliancy, and try to remedy this fault in the third painting. If your sketch should need strong, bright highlights in the paper, and which you have not obtained by leaving the paper white or lightly tinted between the edges of your washes, you can put these details in by mixing your colors with Chinese white, until you obtain an opaque color of the desired tint, with which you can obtain the desired highlights.

For your next problem select a little more different subject, introducing some easy objects in the foreground, as, for instance, an old broken-down fence, a rustic gate, an upset barrel, or the like. Proceed as before, but be sure that you obtain sufficient strength and brilliancy to the objects in the immediate foreground.

For your first attempt make a study of the outskirts of woods seen as great masses of foliage in the middle distance of your sketch. For your second and third sketch select single trees standing in the foreground and make careful color studies of them, defining well the particular color of the leaves, also the individual anatomy of the limbs and trunks of the specimens selected.

## CHAPTER ELEVEN

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### MATERIAL AND TOOLS USED IN THEATRICAL SCENE PAINTING

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THE earnest, diligent student, who has successfully mastered the problems given him in previous chapters, should now be so far advanced in the general technique of drawing and painting that he can begin to paint miniature scenery for theatrical purposes, which, when he has occasion to do, he can easily enlarge to any size desired for practical use. We do not suppose that the ordinary person will start out to build a great big scenic studio, with hoisting machinery, power elevators and paint galleries, and we shall therefore, in describing a theatrical scene painter's shop, confine ourselves to one on a smaller scale, that can be erected anywhere by any ordinary carpenter without involving a too great expense.

Before describing the studio in which theatrical scenery can best be made, we shall devote a few remarks to the materials and tools used in scenery painting. Theatrical scenery painting of the highest and most expensive grade is generally painted on Russian linen, woven especially in great widths for this purpose, but for ordinary grade of scenery, a heavy, coarse, unbleached muslin will answer the purpose very well, and is considerably less expensive than the pure linen goods.

For backing up transparent cutouts in opaque drops, oil parchment, or better still, architect's tracing cloth, is often used. To represent transparent window glass, a light blue gauze is being used. For transformation scenery the transparent spaces are covered with unbleached linen screen, painted on front like the rest of scene and showing the desired effects through its open meshes when light is turned on behind and off in front. On cut drops the cut goods are held in place by square mesh netting that comes in neutral and dark blue colors. Directions in working and applying the above mentioned goods will be given in a later chapter.

The brushes used in scenery painting should be of the best grade, and it does not pay to use inferior tools. Flat wall brushes and bulletin brushes, preferably with white bristles, not too long, but full and springy, make the



best tools for distemper and fresco work. They should range in size from one-third of an inch to three or five inches. For large skies and for sizing a large, flat kalsomine brush should be used.

If rubber set brushes are not used, care should be taken that the ordinary glue set brush is not plunged in hot water, color or sizing. When brushes used for distemper work wear down so that the bristles get too short to hold sufficient amount of color, they will be found of excellent service in dye work, where a short, stubby brush works to best advantage. For oil painting the brushes should have rather long elastic bristles. The theatrical scene painter who paints small-sized models does not need a brush much larger than two or three inches.

Always clean your brushes well after using them and keep them in a flat tray where the bristles do not become mussed up and disarranged. Brushes used in oil should be washed in clean gasoline and before being laid away rubbed with a grease made of part coal oil and part leaf lard. This prevents the brush from becoming hard, but it must be washed out with gasoline before being used again. Brushes that are frequently used can be kept soft between working hours by being laid in a tray or trough filled with a solution of part linseed oil, part coal oil and part gasoline.

For sketching in scenes charcoal is used, also chalk plumbline, yardsticks or long rulers and a flexible ruler to make arches and ovals with. The scene painter should also have several straight edges with double bended edges and a handle in the middle, and will also need for interior work a good supply of stencils and pounce patterns.

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## SCENIC STUDIOS.

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If the student of theatrical scene painting should desire to go into business for himself and wishes to build his own studio, he can either arrange his shop with large windows in roof and sides, so as to allow the work to be done in a good strong daylight, or he can do all of his painting by artificial light (electric, arc or strong Mazda lamps preferred). In the latter case he will obtain exactly the same color effect as the one given the scenery by the artificial light in the theater, but the use of gas or electric light all the time is, of course, more expensive than daylight.

Artists working in daylight should remember that the somewhat yellowish artificial light stands to warm up his tints, and sometimes run his

delicate effects in light blue and purple, and he should lay out his color scheme accordingly.

In a scenic studio should be found several adjustable paint frames for the suspension of the goods on which the scenes are to be painted. There are many different styles of these frames. If the room in your studio does not allow the frames to go up and down, which requires about 45 feet in height for large standard size drops, we can recommend a frame that consists of a movable top batten made of several thicknesses of 1x2 inch white pine boards, nailed together and reinforced with iron strips until it is rigid. This should be suspended from several ropes going over easy working pulleys, fastening to ceiling joists directly above batten. To lower edge of this batten should be nailed a strip of 1x2 inch board having six-penny finishing nails driven upward. The ends of these nails should be sharpened to a needle point. It will only be a moment's work to hang a piece of goods on these sharp-pointed nails. The goods should be stretched slightly while being put on. The sides of cloth should be stretched in a similar manner to uprights, of which the left one can be stationary and the right one movable. On the floor of the studio, directly under the top batten, a long board studded with nails, sharpened and bent slightly downward, should be fastened; to this lower edge cloth should be stretched, and if properly hung it will be found tight as a drum. Where upright reaches top batten it should be fastened to this with a nail driven through bored holes in upright or wooden plugs. The lower end of upright should be fastened to floor boards in a similar manner.

Scenery for smaller theaters runs in different sizes, from 8x10 feet to 16x24 feet. Standard size theaters generally accommodate drops from 20x30 feet and up. Front drops are even larger and in most cases can be painted to better advantage directly in the theaters where they are hung. Most of the larger theaters have paint bridges, where scenic work can be done. In the smaller shops, where the paint frames do not move up and down but are stationary after once adjusted to the size on hand, they must be reached by several tiers of scaffolding, generally called paint bridges, consisting of long platforms about 2x3 feet wide and running the full length of the frames. They should be placed at a convenient space from frame and be built on this, directly over each other, with a space between each of about seven feet. The side away from the paint frame should be furnished with shelves on which the artist can set his colors. A small hand elevator at each end of bridges or platforms will be found handy to hoist colors to the men working above from the main floor. The bridges can also be made movable and hoisted in place with a windlass, or they can be arranged like

the swinging stages used for outdoor painting on walls or bulletins, but all these methods require more or less expensive construction, and if the painter has more agility than money he will get along with his stationary platforms and climb a vertical ladder at each end of them whenever he wants to move higher up than the studio floor. It will often be found to advantage to have small movable trucks for stands for colors, so they can be wheeled around to where they are wanted by the working artists.

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## **SIZING COLORS, COLOR BLENDING AND DISTEMPER WORK.**

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Theatrical scenery is either painted in distemper colors (water colors), flat oil paint, or aniline dyes. The first kind is the scenery most generally used, the second kind is used mostly for much exposed stuff, such as scenery for stages under canvas; the third kind, which is soft and pliable, is called trunk scenery, and is used a great deal by vaudeville actors and smaller traveling theatrical companies.

In the following chapters will be given directions in the painting and building of each kind of scenery.

All canvas or muslin to be painted in distemper colors should first be coated with glue sizing, consisting of a thin solution of bottled whiting, strengthened with glue. There are many branches of commercial glue in the market, some bad and some good. Peter Cooper's No. 178 is a very good grade for distemper work, but a cheaper grained glue can also be used. A stronger stock solution of this should be mixed up and cooked; avoid burning it. This stock solution should be diluted with water when being mixed with dry colors; by experience you will learn to have the glue of just the right strength. If you do not get sufficient in your sizing it will feel kind of soft and mealy to the touch and come off on your fingers when you touch it. If you have sufficient glue in your sizing the surface will be firm and hard and not rub off in the least. If you make your sizing thin, the fresco colors will blend very easily and dry rather slowly, but they will not look velvety and rich as if the sizing had been heavy or had been given a second coat of priming.

The colors to be used in distemper painting should be a good grade of fresco color, which can be obtained in a dry or moist state at the larger dealers. For ordinary work we prefer the dry colors. Below are given a list of the most commonly used medium priced fresco colors.

BLACK. Lampblack is a cheap black mixed poorly with water and should be mixed up to a thick paste before diluting to working strength. Scenic black is a better, somewhat purplish black.

ZINC WHITE or ENGLISH FLAKE WHITE are two good pure whites.

LEMON MEDIUM and ORANGE CHROME YELLOW make good yellows.

ORANGE MINERAL is a good but heavy orange.

YELLOW OCHRE is a good cheap yellow, useful in painting stones and rocks.

RAW SIENNA is a good dark yellow, useful in foliage.

DUTCH PINK, also a darker yellow, is useful as a gold ground.

CHROME GREEN, light, medium and dark, are useful greens.

FOLIAGE GREEN is a good color for leaves and trees.

MALACHITE, SAPPHIRE and PEACOCK GREEN, moist pulp colors, are fine colors for distant foliage.

BURNT SIENNA, a reddish brown, very useful.

INDIAN RED, a purplish red, useful in draperies; a strong color.

BURNT UMBER, a good dark brown.

VAN DYKE BLUE, a cheap blue, useful in foliage and some sky effects.

SKY BLUE, a splendid clear blue.

ULTRAMARINE BLUE, a deep blue, splendid for purples.

MAGENTA RED, a purplish red, with bluish cast, good for lavenders and purples.

ORIENTAL RED, a brilliant red, not as expensive as good vermilion.

TURKEY RED, a beautiful strong red, fine for draperies; hard to mix in water.

VENETIAN RED, a cheap, brownish red.

There are, of course, many more dry colors on the market than the above mentioned, but the list includes most of those in general use and almost any tint or color effect can be obtained by their judicious use. For your first attempt at painting in fresco colors, you should obtain an easel or easel table on which to place your miniature paint frame. This should be about three by four feet, not much smaller, not larger, made of ordinary one by two inch white pine strips. Tack a piece of unbleached muslin on this frame, set it up in a good light, prepare your sizing as explained above and size in your canvas. If first coat does not give desired finish, give it another coat, after the first is thoroughly dry. Then procure or make a small stand to hold your colors, which should be mixed in small tin cans, according to directions already given. Set them up in a tray at one end of

your stand and nail a couple of wide boards to unoccupied top of same, so as to form a palette for mixing your tints. Arrange a shelf in between legs of table on which you can keep the colors not in immediate use. Also fasten a small tray to hold your brushes on a very convenient place in front of stand.

Now subdivide your sized sheet into a good many small spaces, each being about three or four inches. Use a straight edge or a good stick, set off each of these measures all around edges of sheet and draw charcoal line (using straight edge between points). In each of the small squares at top of sheet paint in one of your colors, red, yellow, orange, etc. First, the primary colors, red, yellow, blue; then the secondary, orange, green, purple; then all the rest, as black, brown, etc. For this work use a half-inch flat brush that will cut a nice straight line.

Practice making flat even tints and perfect outlines. In making the outlines of the square press hard on brush and use the full width of it, giving it a firm even pressure, thus avoiding a wobbly uneven outline. Next mix your tints, that is, all the main colors mixed with white, which gives a lighter tint. Then the darker tints that are obtained by mixing darker colors into lighter, as for instance, red in yellow will make darker red, on the orange order; brown in yellow will make darker yellow, on the Dutch pink order; blue in green will make light dark green; black in green will make dull dark green; brown or red in green will make olive green, etc.

Practice these combinations on four or six sheets laid in squares as before, and keep up this practice until you know all obtainable shades and tints by heart, and do not start work on your next problem until you have mastered these and you are perfectly sure of your combinations.

## CHAPTER TWELVE

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### PLAIN SKY BORDERS.

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MALLER theaters, where stationary borders are often used, a combination border frequently answers for all settings. These borders can be painted in plain, neutral colors, made by mixing a cheap blue as, for instance, celestial blue, with whiting and glue sizing, as described in a former chapter. Sky borders for larger theaters and special acts should be made of a more brilliant sky color. Zinc white tinted with Italian blue to the desired shade will make a very fine color. Remember that all fresco colors dry out several shades lighter than when wet, the shade that the color will have when dry can be obtained instantly by painting it on a piece of white paper and drying this over a flame or on a stove.

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### BLENDED SKIES.

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For the colors of a plain, blended sky, start at top of zenith of sky with a mixture of ultramarine blue, Italian blue and white and paint a strip full length of cloth and about one-tenth of height of sky. While this color is still wet, blend softly into it the next strip below, which should be painted Italian blue, mixed with a little more white than the one above. Repeat this procedure in strip below, this time using still more white in the blue tint and adding a trifle lemon chrome yellow. For the next strip use still more white in the mixture and add a little more yellow. In the strip below there should not be any trace of blue, but the color should be mixed from pure white and medium chrome yellow: in the next strip below add a trifle orange mineral to the yellow and in the last strip a little oriental red or turkey red. If the different strips of color have been painted quickly and blended well into each other when still wet, the sky will dry out even, showing a fine graduation of tints from deep blue at the zenith to bright yellowish red at the horizon.

Be sure not to get your shades too dark, but keep them all in a light key. When painting a plain sky on a very large surface it is best to have two men so that one can paint and blend in directly below the other fellow's work. Practice making softly blended skies a great many times until you have obtained an effect that is as near to perfection and as close to nature as you can make it.

For plain sunset skies you should start your first strip of color with a light tint consisting of Italian blue, mixed with white and a little lemon yellow; in the next strip use more white and more yellow; in the one following below omit the blue entirely in tint and let this consist of white and yellow only. For the next tint use lemon yellow without any white, and in that below use chrome yellow medium; follow this with a strip of yellow mixed with orange, then a strip of orange alone; next a strip of orange and turkey red and the last strip near the horizon same color with a trifle more red in it. When making plain, blended skies be sure to have all of your tints mixed before you start to paint, and use as large a brush as the work in hand will permit.

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### VARIOUS CLOUD EFFECTS.

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In your previous lessons in drawing and painting from nature you have had a great many opportunities of studying the sky, as it looks under different illumination and under different conditions. You will now have a chance to put your knowledge to the test by making various skies and cloud effects in fresco colors with the object of having them exhibited in the artificial light of the stage and still look light and airy like the real thing out in nature. The better your preparation for this work has been the easier will be your task. In the former lessons we have kept on urging you to study hard and long on work in these preparatory problems, so as to lay a solid foundation for this practical work, and having done this the remaining chapters will not be found hard or tedious, as all practical scene painting is built on the principle laid down in our former chapters on drawing and painting.

When making clouded skies for theatrical scenery remember that where the plain sky shows through the clouds the coloring is the same; it should therefore be deeper blue at the top, lighter blue in the middle and yellowish at the bottom, or near the horizon. The outlines of the clouds should be

blended softly against the wet sky; the nearer the zenith the clouds are the whiter are the edges, and the nearer the horizon the more yellowish. This yellow color or tint should be on the cream order and can be mixed of white tinted with a trifle yellow and red. The middle part of the cloud reaching up to the light edges can be painted light pink, using white tinted with a little turkey red and magenta, and the lower part of the clouds should be light lavender mixed with white tinted with ultramarine blue and magenta.

For a cloudy sunset effect the plain sky showing through the clouds should be painted, as explained in a former paragraph. The clouds which can be shaped to suit the scene of your taste, all obtain their illumination from the sun below the horizon and their lower edges should therefore be light and the remaining part of the cloud darker and of different color. The nearer the clouds are to the horizon the redder the lower outlines should be. Those in the middle distance have orange tinted outlines and those toward the zenith yellow and pale greenish lower edges. The bodies of the clouds can change from a rose color to a bluish purple. To paint a good and artistic cloudy sunset effect is no easy task, as the tints must be bright and pure, light and seemingly transparent, and you will have to try a good many times before you obtain the desired effect. Study the color effect of the real sky at sundown and try to imitate these colors in your scenic work as closely as your memory and your talent will permit you. It will be an excellent plan to obtain a collection of good color prints showing reproductions of sunset and effects.



## CHAPTER THIRTEEN

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### SCENIC PAINTING OF ROCKS, STONE WALLS, PRISONS AND CASTLES.

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THE theatrical setting depicting a scene in the mountains generally consists of a "back drop" showing distant mountains and foothills, and is called a "rocky pass drop." In front of this drop are placed two large profiled set pieces representing passes of loose rocks inclining down toward center of stage. These set pictures are called "tail rocks." Free standing rocks in either places of stage are called "table rocks." The sides of a "rocky pass setting" are closed in with profiled wings representing rocks, boulders and trees. In more ambitious settings several of the wings are replaced by "kg drops" and "cut drops," representing sky and formation of rocks. In the following chapters we shall consider the painting in fresco colors of rocks, boulders and rough stones.

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### ROCKS AND ROUGH STONES.

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Rocks painted for theatrical purposes should show a pronounced distinction in color between the shaded and lighted sides. The source of illumination may be varied to suit the purpose, but the light must not fall from more than one direction on the painted scenery. Some rocks have square forms, and sharp well-defined outlines; others, like boulders, are more rounded and the distinction between light and shade is less pronounced. Rocks in the shade show cool colors such as blue, bluish green and bluish purple, while coloring of the lighted sides should be warm and brilliant and change from pale cream to bright rose color, according to the kind of stone represented. Rocks should be painted boldly and loosely, so as to represent the natural roughness of the stone, and all cracks and crevices in the rocks should be laid in boldly and sharply, when underlying color is partly dry or completely dry.

For your first study of rocks stretch a piece of muslin on your paint frame. Size it in and draw with charcoal the outlines of a couple of table rocks of different designs but somewhat similar in contour to Fig. 1, Plate 8. Mix up light and dark purples, bluish and greenish tints for the shaded sides and dark greenish yellow for the lighted sides of rocks.

Also have some darker brownish yellow and reddish yellow tints and one almost pure white, with the slightest shade of yellow in it. These tints should be used to break up the monotony of the light sides, being blended softly into the creamish general color while this is still wet, and used for retouching and bringing out the strong lights, especially along the edges where the dark part touches the light. These strong well-defined strokes should not be put on until the underlying color is almost dry, or if a very vigorous sharp line is wanted, then not until they are perfectly dry.

After the light sides of the rocks have been laid in, paint the shaded side with the bluish, greenish and purplish tints blended into each other and given a rough and ragged outline where they touch and blend into the lights. After shaded sides are almost dry put in cracks, holes and depressions with dark purples and brownish blacks in deepest shadows. If reflected lights show in the shaded parts they should be put in with a light grayish blue tint. After having completed your table rock to your satisfaction, roll it up and put a new piece of muslin on your frame, size it and when dry sketch in with charcoal the outlines of a left tail rock (Fig. 2, Plate 8). Paint in a similar way to that described above and when completed take it off, fix up a new muslin and design a right tail rock and paint same as before.

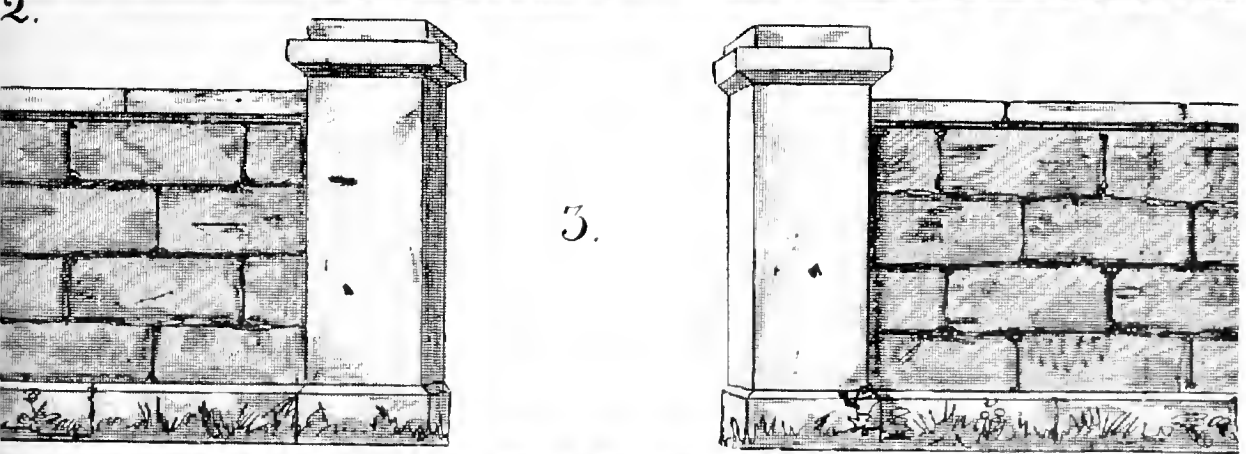
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## MODERN AND ANCIENT WALLS OF STONE AND BRICKS.

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Having completed our studies of rocks, we shall now apply some of the attained knowledge of making rough textures, and our next problem to solve will be the painting of large stones with "rock finish" surfaces, as they appear in some kinds of stone walls and old castles and prisons. Fig. 2, Plate 8, shows two sections of set piece of a modern stone wall of yellow sandstone with white marble pillars, base and coping. The iron gates have been removed but will be spoken of in a later chapter. Stretch a piece of muslin on your paint frame, size it in and sketch in the outline of wall with charcoal, using a straight edge. It will not be necessary to indicate the

PLATE 8.





single sandstones in the outline sketch, as the whole space occupied by them will have to be painted in solid, and the stones outlined on this ground color.

Have the perspective vanishing point in the middle of the opening and draw all of the receding lines of gate posts down and up toward this point. When your outline sketch is completed, mix some white and tint it in different colors with a trifle yellow, a trifle red and green, just enough to give the white some delicate shades; paint the marble with these light tints and blend the edges of the tints well together so as to obtain a soft clouded effect. Mix a yellow consisting of yellow ochre, a trifle burnt umber and sienna and white. Have also a darker grayish tint of a similar color and a warm reddish one with more burnt sienna in it. Lay these three shades in the spaces reserved for the sandstones and blend them well together so as to obtain a clouded effect. When perfectly dry emphasize here and there with a dot and broken ragged line to represent the unevenness and marks of the stone cutter's chisel on the stones, using your two darker tints for this. Next outline the separate stones with charcoal. Next paint the dividing lines between the stones with a purplish brown color, giving the line a broken and somewhat uneven appearance that mortar lines between roughly hewn stones always have. Finally highlight the top and left side of stones with a broken outline of a creamish white, outline same sides of marble with a straight line of pure zinc white and then shade opposite side with bluish lavender. Having completed your first scenic model of wall set piece, make one more, this time changing color of stones and make gate post of large brownish stones.

The next problem will be the painting of an old, half crumbled down brick wall, covered with remnants of plaster and having an arched door in the middle. The top of the wall is covered with red tiles and partly covered with overhanging vines. Use muslin for model of this design (Fig. 3, Plate 8), size same and sketch in, as usual drawing an outline around all places where brick shows through plastering. For the plaster use tints similar to white marble, only do not blend them quite so much together; where shadows from foliage fall on plastering it should be painted bluish lavender. For bricks paint a ground color of reddish orange, Italian red and purplish red, blend together in clouded effects. Use medium red for top tiles.

For the door use a light brown made of burnt sienna, yellow ochre, and a little white. This color should blend softly into an olive green shade at lower part of door. For hinges use a bluish green, outline these on top with blue and shade with purplish black. Use dark Van Dyke brown for lines between boards in door. For shadow of wall on door use an olive green.

Outline lower edges of broken plaster and lines between bricks and large stones at bottom with a deep purple. Make large stones a greenish gray, finishing them as explained before. Use a creamish white for mortar showing here and there between the bricks. Paint bush and vine as a light, reddish green, and when this is dry lay on leaves, light yellowish green on top, and darker bluish green in shaded parts to the right and below. After having completed the first model of old wall set piece, make one more, changing the design and the color scheme.

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## PRISON DROP.

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In this lesson we shall only consider the interior of an American prison. The old world dungeon, with its pillars and arched ceiling, is of course a great deal more artistic, but also a great deal harder to paint, and will not be treated until later in this work. Fig 1, Plate 9, shows a back drop of an ordinary prison. Windows and doors can be made practical, if so desired, and the drop mounted on three or more slats, but in this lesson we shall only consider it as a model of a solid back drop to go on rollers and battens. Tack on and size a piece of muslin and sketch in outlines of door, windows, arch and pillars. The thickness of pillars and arch is seen in the perspective counted from a vanishing point in middle of door. After the outlines have been sketched in, cover the space of the stone work with two or three tints of yellowish gray, brownish yellow and bluish or greenish gray. Use same tints for pillars, smaller arches over windows, and larger arch over door, but lighting space around door up to pillars and arch, the tints should be darkened with some burnt umber. The tints should be put in soft cloud effects and be blended together some. Next lay in thickness of walls shown around windows with a yellowish white, using yellow ochre and not chrome yellow.

Model shows light to come from upper left corner. This is an imaginary light, as the room in reality obtains its light from the three windows shown, but this illustration if carried out correctly would make the problem of shading too complicated for the beginner, hence the imaginary source of light.

The space behind the bars in three upper windows should be made a light blue sky color. The bars themselves should be painted bluish black. Space behind bars in window in steel door should be made with a yellow

ish tint. The door to be painted in dark bluish and bluish black tints, blended somewhat together and painted to run up and down with straight vertical strokes of the brush. Steel bars crossing door are light bluish with white highlights through middle and bluish black shade below. Rivets and bolts have a half-moon shape, light blue highlight on upper left side and a corresponding shade of bluish black on lower and right side. When ground color for stone work is dry, sketch in stones, using a straight edge. Separate stones with brownish-purple ragged outline here and there, giving this line a lot of color in the corners, and putting a few dots and ragged lines here and there on the stones to indicate roughness and marks of drill and chisel. The light inside of arch should be yellowish gray, the dark side purplish gray. Some of the stones should be highlighted on upper and left side with a yellow white, and the shadows and shades should be painted a purplish gray. After having completed your first model of a prison drop, make one more, changing design to suit.

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## EXTERIORS OF OLD CASTLES.

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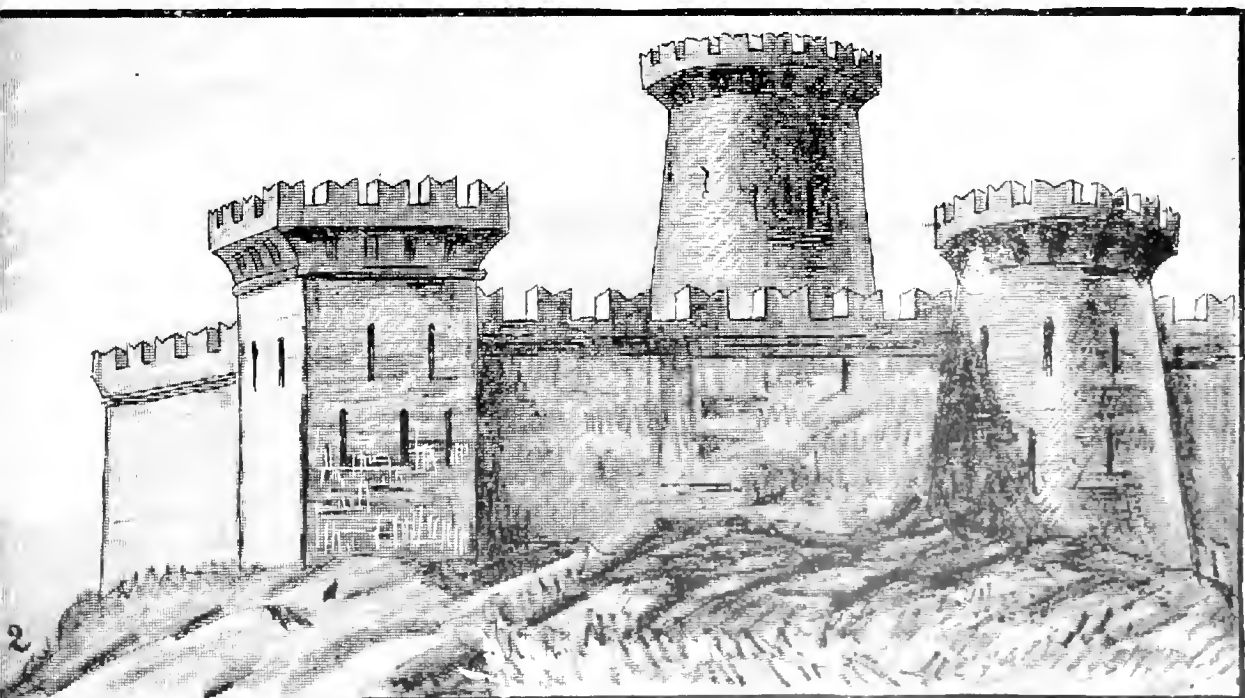
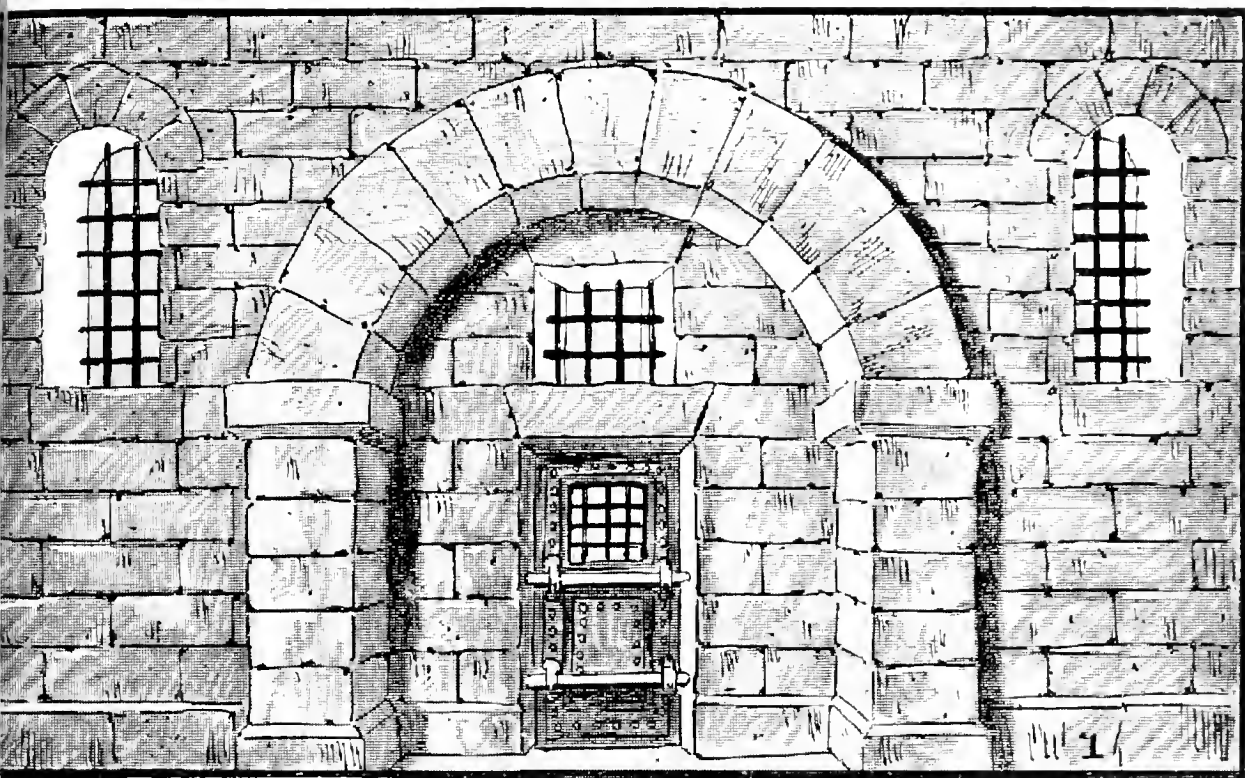
Fig. 2, Plate 9, shows the ramparts and battlements of an old mediaeval castle or fortress. Size in a sheet of muslin and start to sketch in outlines of castle, as shown in cut. Next mix the colors for the sky, starting it a deeper blue and running it down to a lighter greenish blue, running into a pale yellow at and above the horizon. The clouds should be blended in softly while the sky is wet, their upper and left edges to be cream colored, getting a little deeper as they get nearer to the horizon. The lower right side of clouds to be a pale lavender.

The light on the castle is coming from the upper left-hand corner. The wall to the left should be painted in lighter tints of yellowish, brownish yellow and greenish gray, the remainder of lower walls in deeper tints of the same hues. The protruding walls throw shadows to the right that are still deeper on the brownish-purple order. The stones do not show as prominently and sharply defined as in the prison and should, therefore, be indicated with deeper colors here and there while ground color is still wet. The towers should be shaded and the tints blended softly so as to make them look round. Having their lightest shade a little on the middle and to the left and the darkest shade opposite to light, but on right side of tower. There is also a darker shade opposite to light, but on right side of tower.

and a darker shade falling from under the cornice of the top battlements. Notice in cut how the light and shade of cut-out loopholes in top battlements change according to location. After the whole fortress has been painted over, highlight here and there with lighter color and emphasize roughness of stones in a few places with a brownish purple. The castle is set on a rock foundation and this should be painted as an ordinary tail rock, described in a previous chapter. The rocks should be lighter over left side and darker up under right side of castle. Down in the foreground is seen some tall grass. This has first a ground, painted in blended tints of olive green and brownish green; where partly green a few clusters of bright bluish green. The blades of grass are painted on with a long sweeping stroke of a small flexible brush, and when fully dry it is retouched here and there with clusters of grass and weeds, painted in light yellowish and grayish green.



PLATE 9.



different brush in every color and lay on tints, keeping them separated while wet, run a trifle together with a clean brush, giving the appearance of growing grass and shrubbery. Next paint in a few dark green and brown patches with a smaller brush, but do not get them too sharp or distinct. Left foreground should be painted all over in a dark green and brown and when partly dry the light should be put on with light greens, light grays and light browns. When perfectly dry the highlights on rocks, the creamish white trunks of the birch trees should be put on with a smaller brush, the blacks on same accentuated and the dark greens and browns of foliage put on when background is dry. The foliage should be highlighted with light olive green. Be sure to use a slender, springy brush to give the effect of foliage. For the river use a light cream color and rub this while still wet into streaks of deeper yellowish orange; also shade under cliffs and shores, using burnt umber and dark greens. The stroke of the brush should be parallel with lower edge of paint frame. For rocks and shrubbery in right of foreground use a background of burnt umber with a trifle purple for rocks and deeper greenish blue for foliage. When partly dry paint in lights with white and yellowish mixed with burnt umber; strongest lights left to be painted on when other colors are dry and should be put in with smaller brush in a light blue and should be painted in a similar manner to those at left. When the whole picture is painted and finished look it over critically and where it appears wrong in color try to correct this by scrubbing, rubbing opaque white color over with washes of transparency.

Next obtain a few colored studies of mountain scenes and copy them faithfully. After this practice select about three or four black and white illustrations of mountain scenes and make colored scenery models in distemper colors from them. Finally compose designs of three or four original rocky pass settings from motifs taken from the different scenes you have copied. Keep a collection of your rocky pass scenery models to be copied when receiving orders from actual scenery of this kind.

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## DESERTS.

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A desert scene is not used very often in ordinary productions, but nevertheless you should know how to make these settings if called upon to do so. Often when a play requires a desert scene, the desert proper is painted on the back drop and seen through cut and netted leg drop representing tropical vegetation. As the student will be taught how to paint

PLATE 11.





this kind of scenery later on, we shall in this lesson only concern ourselves with a plain desert scene painted on a solid drop.

The sky in a tropical country is deeper blue than in the North, and supposing our scene to represent the famous African desert, Sahara, we shall first sketch in a low ridge of distant mountains running across the whole width of the canvas and divide this into equal parts, the one above the mountains to represent the sky and the one below the desert.

Over the left in the foreground can be sketched in a protruding rock, a couple of skulls and ribs of dead animals; to the right in the middle distance we may have a couple of pyramids or a sphinx half buried in the sands. The sky should be painted with no clouds, starting with ultramarine, then running through an Italian blue to a light emerald green into a light cream behind the lavender colored mountains that are seen in silhouette against the sky. For the color of the same use a light cream in the far distance. Bring this down to a warmer tint in the middle distance and make it still warmer and a trifle darker in the foreground. All objects should have lavender colored shades and shadows, the lighter in the distance and darker in the foreground. Make three or four different studies of deserts as described above. Change the scene in some of them to New Mexico alkali lands with low mountains and ridges or crevasses in the limestone ground, which should be sparingly covered with bluish green sagebrush and a large-leaved cactus in the foreground.

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## SEA, WATER, MARINE.

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An ocean drop is generally included in a scenic outfit for opera house playing repertoire shows. When making scenery models in distemper colors of an ocean drop divide your canvas almost in the middle; paint a plain or cloudy sky in the upper part and the ocean in the lower part. Start with an ultramarine tint against the horizon; lead this into a light blue, then into a greenish blue that gets darker green toward the bottom. All of these tints should be parallel with the horizontal lines and will blend into each other.

When colors are partly wet, some darker parallel lines made with a small brush can be laid on the ground work at top of ocean. As you go farther down this should be longer and deeper, a trifle farther apart and gradually assuming the form of waves. These should be made larger and

darker in the foreground and, supposing the sea is rough-crested with white foam, that should be daubed on with a round brush while underlying color is damp and then highlighted with pure white when dry. Make several models of sea and water. If you live near a large body of water, go out sketching and make your studies directly from nature. If you live in an inland town obtain a good collection of marine studies in colors and copy these. "Water rows" are set pieces set across in front of drop so as to allow property boats to be handled behind them which, when seen from the audience, will appear as sailing on the water. They are mounted on profiled tops. The "water row" nearest the proscenium is generally painted to represent a part of the shore or beach. The rest of the "water rows" are to be painted similar to lower edge of back drop. If a stormy sea, the foremost waves should be made into breakers that roll over. Moonlight effect on the water scenes can be made in different ways that will be explained in a chapter dealing with transparencies and transformation scenes.

Spend a great deal of time and study in this lesson, as it requires more originality of conception than former problems. If there is no large body of water near the place where you live, you can easily find some pond, lake or brook, in which you can study reflections in water and obtain a fair idea of how smaller bodies of water should be painted on theatrical scenery when such representation is required.

## CHAPTER FIFTEEN

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### PLAIN CHAMBERS.

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plain chamber, often called a "kitchen" among theatrical people, is a setting representing a bare room. If the scenery is not being made for some special production, but as house scenery, it is best not to make it look dilapidated and plaster should not be represented as cracked and peeled off, showing the lath below. We shall first consider the ordinary plain room as found among the house scenery of the ordinary theaters and opera houses.

Interior settings in smaller houses and in most moving picture theaters are often hung the same way as exteriors: that is, the back drop goes on rollers or battens and the wings move in grooves. In more pretentious houses all interior settings are made as box settings in flats mounted on frames and held in place by stage braces and screws. We shall devote a few words to the mounting of interiors before we proceed to give directions for the painting of same.

If a drop is supposed to roll up, it is secured to a top batten made of two pieces of three-inch clear white pine boards, that are nailed together on either side of top edge of scene.

The floor edge of scene is fastened to a roller which can be a hollow or skeleton roller. Lengths of gas pipes are often used for bottom battens. The drop is then hoisted up by ropes running through pulleys. The wings work in groove boxes that are fastened at either side of stage, slanting away from front. If setting is to be boxed in it should be cut up in "flats" and these should have practical doors and windows.

All flats are mounted on three-inch white pine frames and can be put in place as described and secured with stage braces and lashing ropes.

We shall now start to paint models of a back drop for a plain chamber setting, the wings to be painted in a similar manner, having one practical window and two practical doors.

First put muslin on paint frame and size in the usual manner. Next sketch in scene, following the dimensions of the illustration, and use a straight edge for all short straight lines and a chalk line for all long horizontal lines and a plumb line for long vertical lines, when you come to make the scene in actual size.

The wall proper should be made of dull yellow, made of yellow ochre, whitening and a little burnt sienna. The space shown above picture moulding should be made a trifle lighter, omitting the burnt sienna and using more white in the color. The woodwork should be painted to indicate wood, and three shades of dark olive green, a brown and a dirty light red should be blended into each other on the canvas, having strokes of the brush follow the directions that the grain of the wood would naturally run. The sky, through panes in window, should be painted a light blue, getting lighter toward the bottom. When the woodwork is dry it can be grained in places, showing a knothole here and there; this should be done with a small, well-pointed brush. Graining color should be darker than background in light places of wood, and light in dark places. Finally everything should be outlined on top and left side with a strong light red, made of orange mineral and zinc white, and then shaded on all lower and right sides with black and very blackish purple.

Set-in panels in doors receive the light and shade just opposite. In finishing up the lines the boards in wainscoting should be separated with black line and have a trifle red on them here and there. This finishes the model, which is very easy to make, and so is the finished setting in actual size. If used as a box setting, the flat should have two practical doors and one or two windows. Make the models of a plain chamber setting, only in one indicate loose, dirty plaster instead of an even wall. This is obtained by using three colors, a dirty light brown, a dirty yellow and a green. Rub these into each other in a sort of cloud effect when painting them on wall space. On third model you should use same plaster effect, but have it cracked in places and peeled off so that lath will show below. Outlines of plaster should be highlighted with a rough broken line in white. Lath is painted in a dirty yellow, set apart with a broken dark brown line, with splashes of white here and there.

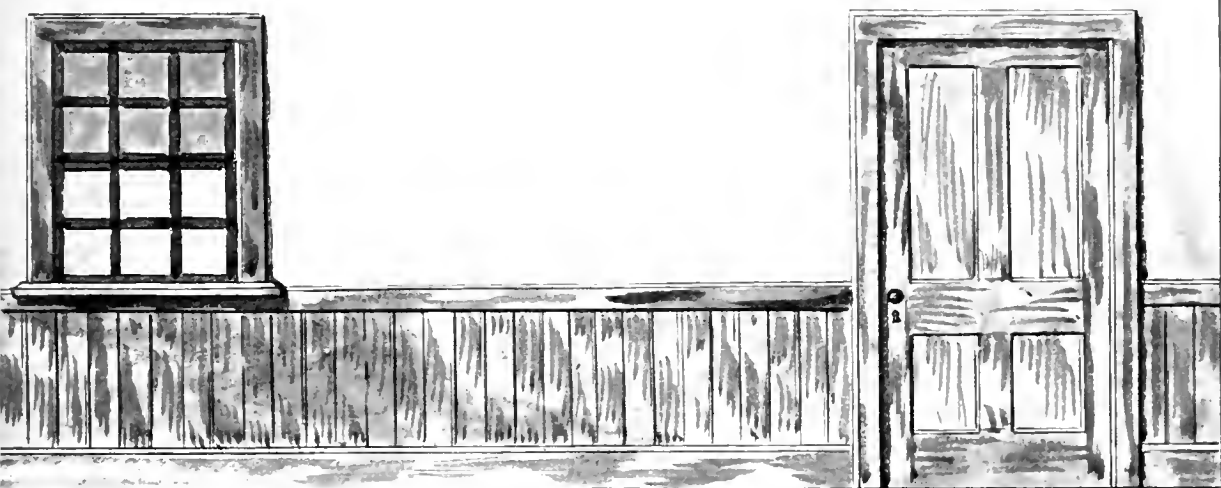
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### PLAIN CABINS.

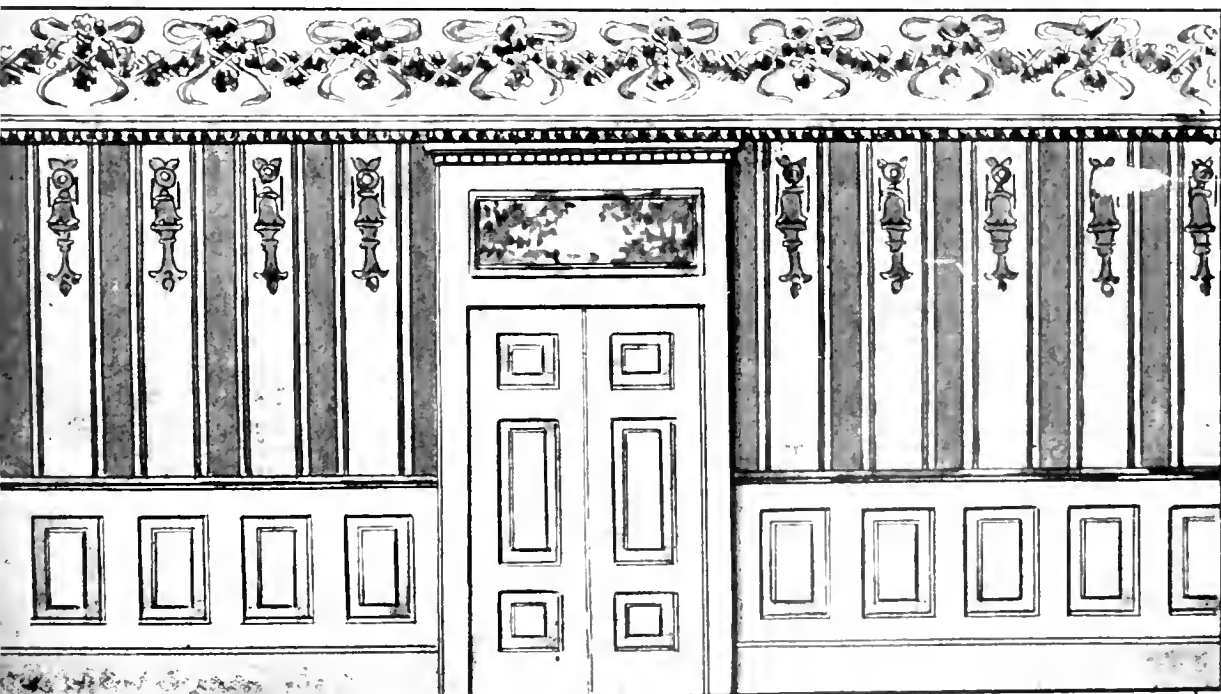
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By a cabin is meant either the interior of an old log cabin showing the logs in place of plain walls of the chamber, or interiors of wooden shanties,





• KITCHEN •



• PLAIN PARLOR •



showing the studding, with loose boards nailed to the outside. Both are comparatively easy to paint. In the log cabin interior make window smaller than in plain chambers and give it a rough frame. Let door represent one roughly put together of boards with a "Z" shaped brace and hung with a strap hinge. The logs can either be shown with round sides or be represented as having been roughly trimmed with an ax.

They should be painted to look as if clay were put in between them to close up all cracks and make the room air tight. For interior of shanties you will be able to find a good model in woodsheds, sawmills and outhouses and the like. Copy these directly from nature, in colors if possible, and make two models, one of a log cabin and one of a shanty interior.

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### PLAIN PARLORS.

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The professional theatrical technical name for a parlor setting is "center door fancy," and such a setting consists of a piece often called "arch," which has a large opening and often is made to fold in the middle, and other flats which are called either plain flats, door flats, fireplace flats, window flats, jogs, etc. In smaller theaters the setting generally consists of a back drop with a double door in the center and four or six wings on the sides.

We shall now describe the painting of a back drop for a plain parlor setting; the one illustrated is of the early colonial or empire period and very artistic. Almost any tasteful color scheme can be used and you need not confine yourself to the one described in this lesson. First find middle of your canvas. Drop a vertical line through this, dividing space in two equal halves. Then set off lines for footboard, panels, wainscoting, wall pictures, molding and borders. Draw horizontal line through these points.

Then set off door and draw it in correctly, being careful to get all panels true and square. When scene is all sketched in, mix a pink of zinc white, tinted with a trifle oriental red, turkey red or magenta lake.

Paint space over picture molding with this tint. When this is dry you can sketch in garland of flowers; as this design is a repetition of a unit, time can be saved when you have to paint the scene in actual size for practical purpose to make a "Pounce pattern" on a strong oil manila paper. This pattern can be made as follows: Take a sheet of ordinary white paper, a little larger than one unit of the pattern, double this paper in the middle and on one side of it draw in outline half of a flower garland, with half

of the pendant hanging down between them. Pounce this pattern with a hot pin or large darning needle. When unfolded, this sheet will give you the pattern of the full garland. Make a bag of double thickness of cheese cloth; fill with some dry color, for instance, burnt sienna; this color will rub through the holes in the pattern and transfer a dotted outline onto the sheet of manila paper. Go over these lines with a lead pencil and rub the paper lightly with smooth sandpaper, which will prevent holes from closing. The perforated pattern can now be pounced on the scene, using dry color in a bag as before. This process, described here in detail, should be resorted to whenever "pounce patterns" are called for in the future, but when making small models for studies you should sketch all patterns directly on your canvas, even if they are, as in the case mentioned above, repeaters of some certain unit. After having obtained a good outline of the full length of garlands, start to paint all the flowing ribbons in a light blue, shade these with dark blue and highlight with white tinted with a little blue. Next paint your flowers. For roses use a light pink background, when this is dry make a deep dark red depression about middle of flower, and shade dark part of flower with this deep rose color and highlight with white, retaining the form of a rose, which should be studied from nature. The other flowers can be made to represent daisies or black-eyed susans. The leaves toward the outside of garland should be painted a light green, those in middle a stronger, more olive, green. When dry, retouch with brown and purple in shaded places, under ribbons and flowers.

The molding running below border is supposed to represent a carved, gilt molding. It should be painted over first with a flat gold ground, mixed with Dutch pink and a trifle burnt sienna. When this is dry and wall below has been painted, divide molding in the middle, and in the lower part sketch in an "egg staff," consisting of egg shaped ovals, highlighted and outlined on the left with a pale yellow made of lemon with a little zinc white, and shaded on the right side with two parallel lines of dark brown, Van Dyke brown or burnt sienna.

Top part of molding should be "flushed up" with brown or burnt sienna. Bottom part of molding should be "flushed up" with flashes of light yellow at certain intervals. In the middle of these flashes paint one or two squares of solid yellow, then take brush full of color and drag brush out from center until it is almost empty of color, and this will give a graduated flash of yellow fading into the gold ground. Outline molding on top with two parallel lines of yellow and shade above egg staff and below molding with brown lines. Next paint wall space in some appropriate color, for instance, light pea green made of chrome green mixed with whiting.

When dry lay in a strip and make or buy some appropriate design that will fit in the top space between the strips. In order to stencil successfully on scenery a soft brush and a stiff, thick color should be used. With a little practice you will soon be able to put on a stencil pattern with clean, sharply defined outlines. When making small models these patterns should either be painted free hand or a small stencil pattern could be used. Next paint all of the wood an old ivory, made of whiting slightly tinted with a trifle chrome yellow. Frame around door should be a little lighter than frame around door panels and wainscoting panels. Paint the panes a very light green, several shades lighter than the wall. In panel over door paint an appropriate landscape, either copied from one of your original sketches from nature or from other colored, tasteful art studies.

Finally line all woodwork with pure zinc white on top and left side and reddish purple on bottom and right side. Panels that are set in should be outlined, that is, dark on left and top side and light on right and bottom side. The second lining on panels goes the same way as the ordinary outlining. All this outlining should be done with a small brush, using a lining stick with a beveled edge and a handle in the middle. When all the outlining is done look your model over well and see if it requires any more finishing touches, and when finally completed to your satisfaction start to make two or more models of a back drop for a plain parlor setting, changing the design and color scheme each time, and in one of these models place a large French window in the middle instead of the center door.

## CHAPTER SIXTEEN

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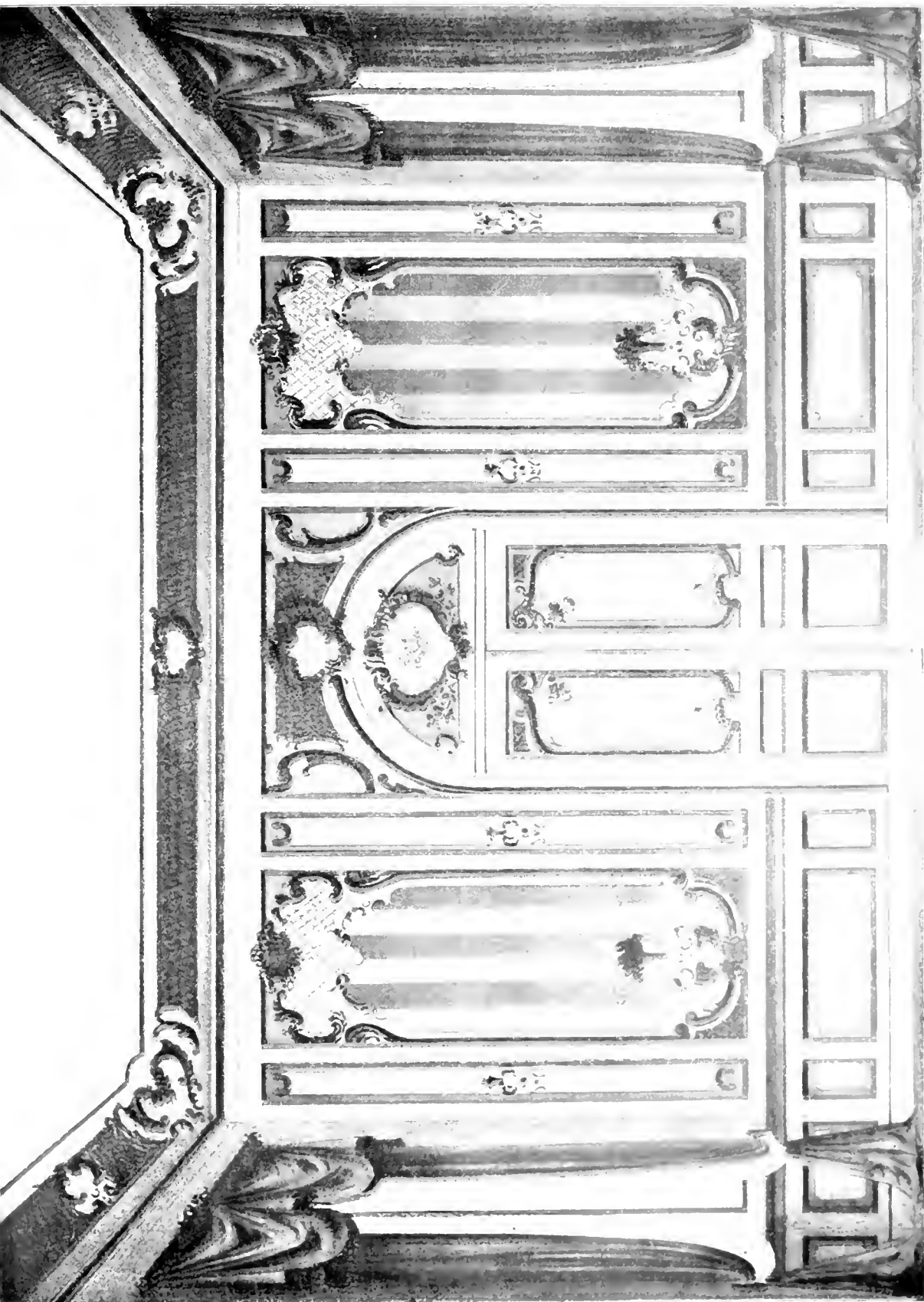
### FANCY INTERIORS. PALACES.

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FROM the plain to the fancy interior is a short step and the pupil who can paint a plain, tasty interior will soon learn the additional ornamentation of detail required for the so-called "fancy interior" setting that always is found in the house scenery of even the less pretentious theaters. In this chapter is shown a small reproduction of a fancy interior setting, in modified Rococco style, and we shall now explain how to paint a scenery model from this design. The same methods as described here should be used when working on a large scale in the studio or on the paint bridges, only that a chalk line should be used for all straight lines in place of a ruler and a straight edge, which can be used when making a small model. First size your muslin or canvas in the usual way; then find middle of same and draw a plumb line down through it. Then plumb the other two edges of canvas and set off a top and bottom line of scene, square with these plumb lines, measure off points for all horizontal lines in the bottom panels, all vertical lines of door and panels, and draw these with straight lines from top to bottom. The printed model shows also a ceiling cloth with ornamental gold border in Rococco style. Rococco style, also called "Baroque" style, came in vogue in the middle and latter part of the eighteenth century and was brought to its greatest perfection during the reign of the French kings, Louis XIV and XV. Later it became degenerated and too loaded with bizarre and grotesque ornamentation until it died out during the French revolution and was succeeded by the pure and simple Empire style, of which our Colonial style is a modified form and which takes most of its motifs from old Greek sculpture architecture, while the Rococco style obtains its name from the French word "recaille," meaning an oyster shell. This combination, together with the letter "C," forms a leading motif in this particular and magnificent style that always abounds in richly gilded ornament in graceful swung curves, and is especially well adapted to the large and brilliant apartments of royal castles and chateaus.

PLATE 12.







Only the larger theaters use solid ceiling cloth, suspended over their boxed-in interior settings, and we shall advise you to use the border directly on this back drop and wings or flats, as the case may be. It can also be painted on separate interior borders. (For construction of these see chapter on construction later on.) After all vertical and horizontal straight lines have been drawn in their true proportions, the half circles over door should be put in and all ornamentation showing curved lines sketched in either free hand or by the use of perforated pounce pattern, made on manilla or heavy building paper. After the whole scene is laid out and all corners have been found true and square, the tints and colors for painting this drop should be mixed. In describing the painting of this interior setting, however, we shall refer only to the colors necessary to be used. For all of the white mix a tint consisting of bolted white, modified with a trifle chrome yellow medium, to take the harshness out of the white. For the inside of the large panels use a bright turkey red or oriental red. For the frames around the molding use a bright pea green mixed from foliage green, a trifle Italian or sky blue and white; for the gold ground use Dutch pink, warmed with a trifle burnt sienna; for shading this, rich brown made of burnt sienna and Van Dyke brown, and for highlights a thick yellow, mixed from chrome yellow, lemon and zinc white.

All the gold moldings should first be laid in and then retouched or "flushed up" in places where the light strikes it. Whenever no certain source of illumination is demanded it always is best to have it come from the upper left hand corner at an angle of 45 degrees. This will make all tops and left sides of protruding objects light and all right and lower sides shaded. If a panel is set in, this rule is to be reversed and the right and lower side illuminated. After all panels and moldings have received their ground color, highlight the molding as described above, using the colors thick so that the half-emptied brush can be dragged from the highest lights toward the shaded side. This makes the highlights blend nicely with the background and gives them a look of brilliancy that can be obtained in no other way.

Finally shade and retouch all molding with a rich brown, using a straight edge on lines of all straight moldings and working the shading on all curved moldings free hand. If light green spaces over center panel are desired to be painted in imitation of tufted satin, as indicated in illustration, the spaces should first be divided into cubes or diamonds of equal size and the left and upper space of these highlighted with a light tint of zinc white and a trifle green; the lower right side should be shaded with a

darkish, bluish green, and the middle left the color of the background, that is, the same pea green as found in all the rest of the green spaces.

The flowers in the center panel over the door should be copied from a good flower study. A picturesque landscape or a fancy head can also be put in this space if desired. After having completed your first model of this fancy interior drop, make three or four models of a similar design, but arrange somewhat differently and have different color scheme and ornamentations.

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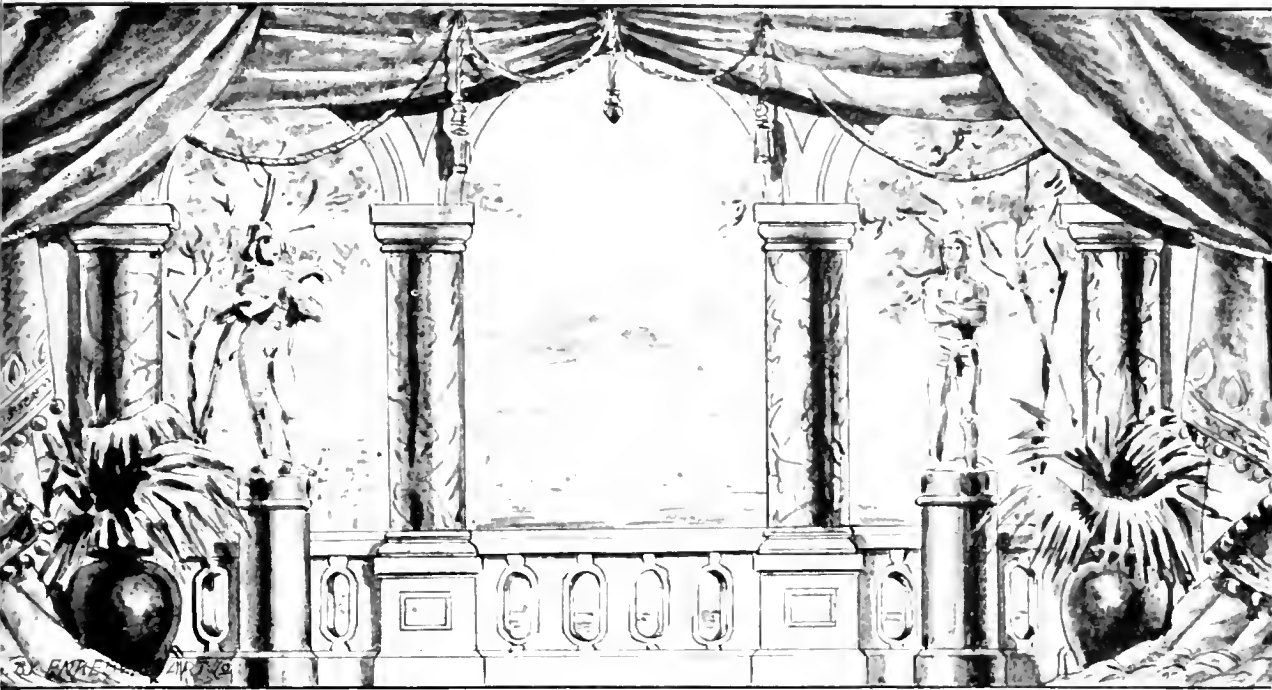
## PALACES.

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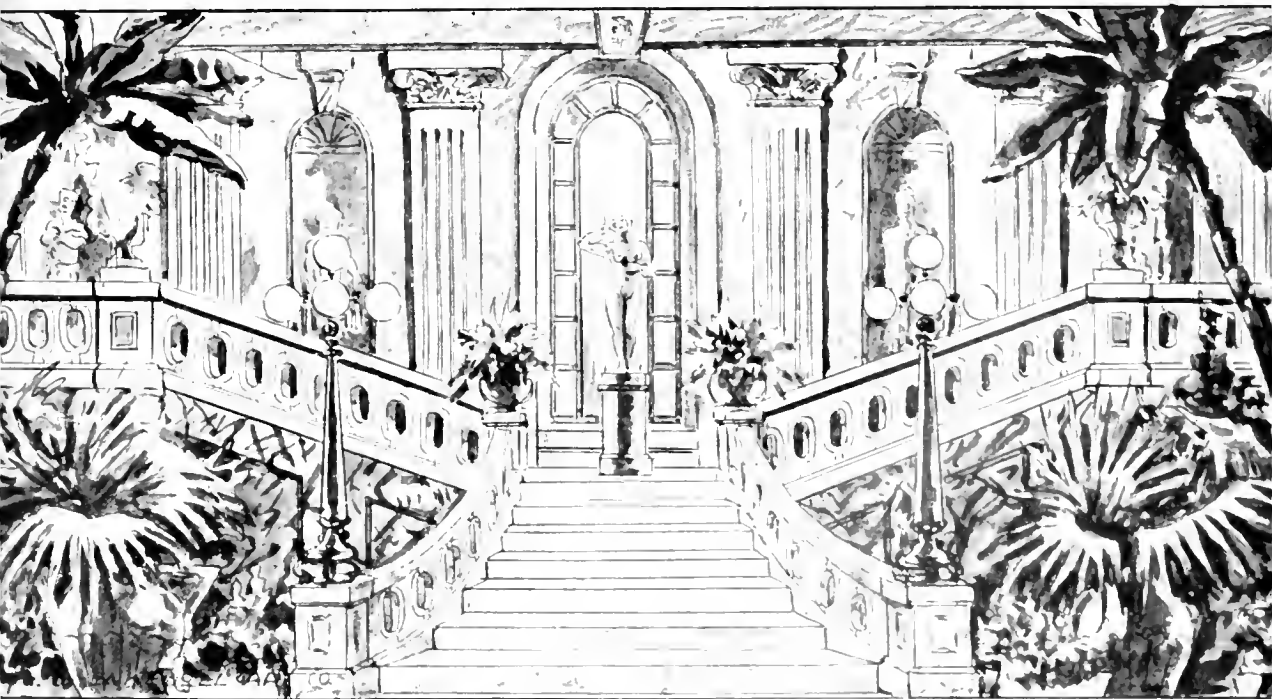
Palace interiors are often called "palace arch drops," in the language of the stage, and generally consist of a back drop with two or more leg drops to match, and are cut and sometimes netted. On Plate 13 we have illustrated a palace interior drop, showing distant landscape through three arches supported by a marble column. After the muslin has been sized in the usual way, drop or strike a straight line down through the middle, also one on each side of the canvas, then square top and bottom lines with these vertical lines and start to lay out the balustrade. Next draw the columns and the arches, and when working on a large scale you can use a bit of charcoal fastened to the end of a string; when making the half circles of the arches on a small model, these circles can be laid out with an ordinary compass. Next sketch in the top draperies, vase, palms and statuary. If you have already started, as is customary, an indexed collection of all kinds of cuts and prints, we believe that among these you will be able to find models for these statues. Enlarge the small prints by the method of squares as taught in one of the first chapters of this book, and draw the enlarged statue in its place on the scene. The landscape behind the balustrade and columns should be some kind of a sunny southern scene.

An Italian scene, like the Bay of Naples shown in our illustration, will be found very appropriate. This distant scene should be painted in light, vivid colors or tints, so as to give sufficient distance and illumination to the scene. Having completed the charcoal outline sketch, we will now start the painting of same, and you will soon find out that this is one of the hardest problems you have solved so far, but it will be worth the trouble and if executed correctly will make a most magnificent and brilliant piece of scenery. First select a good study for the landscape, then

PLATE 13.



PALACE ARCH DROP



GRAND STAIRCASE DROP



draw the main outline of this on the canvas and mix a color for the sky. If you decide to put on a design similar to the one shown in the illustration, the top of the sky should be painted in a tint consisting of sky blue, Italian blue, zinc white. This should be lighted up with more white as it comes closer down to the horizon, and in the last laps should have a trifle lemon yellow, then medium yellow and finally orange mixed into the color. The mountain should be painted in a light pink shade and, while still wet, with bluish lavender. Down toward the shore a few dots of white should be laid on here and there to represent houses. The water should be started with a color similar to the top of the sky and be painted deeper blue as it comes nearer to the foreground. The buildings on the left shore should throw a white reflection in the water, which must be painted in while the color is still wet and, as the rest of the water, with horizontal strokes of the brush. The buildings are either pure white, a trifle yellowish or very light pink, showing a red roof here and there and being shaded with a brilliant lavender. Next paint the two pine trees in the foreground. They are evergreens somewhat on the order of fir, but should be painted in a light key, using a light pea green in the light and a more bluish green in the shaded parts, light reddish trunks highlighted with orange and shaded with purple. Then paint the arches and the balustrade in a grayish lavender, not too light. The columns can be made to represent dark green marble, and in order to give a sufficient roundness, you should mix up all of the tints for them before beginning to lay them on, and when doing this rub each color into the other so as to secure a soft and even blending. All brush strokes should be laid parallel with outside of columns and each tint run the same width the whole length.

Where the highlights strike the columns a very light green should be used and one on each side of this and along the outside of the columns should be a trifle darker, and in between them should be painted a tint of still darker green, having a very dark bluish green shade running through the middle. When tints are partly dry lay on the marble veins in the blackish green, even darker than the darkest part of columns. When columns are dry highlight these with a flash of rather thickly mixed zinc white from the top down through the lightest green, and drag the brush out well at the end of the flash. The next to paint will be the heads and bases of columns, which are supposed to represent gold and bronze. They should be laid in with light gold ground made of Dutch pink around the edges, and with a darker gold ground in middle made of Dutch pink with a trifle sienna added to it. When this is dry, highlight with yellow lemon, mixed with zinc white, and outlined and shaded with Van Dyke brown. The arches

and balustrade should be highlighted with white, modified a trifle with a few drops of yellow in it, and shaded with a bluish purple. These pieces of wall can be marblized with a lighter and darker vein if desired. The draperies can be painted in several shades of lavender and purple, being very light in the highest lights and a very deep purple in the darkest spots, so as to obtain sufficient sparkle and luster of rich silk draperies. The lining where shown and the lower draperies can be made of pale yellow or pale pink. The cords and tassels can be laid in gold ground and shaded with light lemon yellow. The palms should be painted a bluish green and high lighted with a very light green, and shaded with a deep olive green. The vases and small columns on which the statues stand should be made on the order of the large columns. The ornaments on the draperies should be made to represent gold, with different colored fancy ribbons running in between them. The statues can either be painted to represent marble or bronze. Marble statues have a zinc white modified a trifle in parts with yellow, a grayish lavender in half tints and a more pronounced lavender in the shades, and a purple in the dark shadows. Bronze statues should be painted light green in the highlights, brownish green in the middle tints, dark olive green in the shades and dark brown in the shadows.

After the colors are dry, the highest lights should be scrubbed on in pure white for marble and very light green for bronze effects. Finally take a look at the whole scene and retouch it where needed and highlight in places where it looks dull and flat. It stands to reason that no highlights should be put in deeply shaded places, but only where the highest lights strike the subject. Remember that the scene requires hard work, but is very instructive, and do not get discouraged if you do not succeed the first time, but try again and benefit by your mistakes and when you finally have a first-class palace arch drop you will be in possession of a very magnificent piece of scenery that is used a great deal in comic opera, burlesque and minstrel shows.

The next piece of scenery to paint will be a grand staircase drop, which is even more intricate and elaborate than an ordinary palace arch. When you have the canvas ready you should drop three vertical lines down, one through the middle, one at each edge of canvas; also one horizontal line at bottom of scene and one line parallel and square with vertical lines at top of canvas. Next start to lay out the columns or pilasters on back wall, then draw your staircase, and finally the object in the foreground. Most any kind of a bright and harmonious color scheme can be used for this drop. First paint one model in the colors given below and then a few

more in different color combinations. The French window in the background should be painted a dark blue, at the top blended into a light blue and the color ending up with a yellowish tint in the lower panes. Window frames should be given a light purple color, highlighted with light red and shaded deep purple. The statue in front of window should be painted as described in former lessons, and back wall should be made a light buff color, with pilasters (flat columns) in ivory with gilded caps. The staircase should be painted in imitation of white marble and top steps nearly white, those in the middle with a trifle yellow in the white, those lower down with a little red in the tint and the lowest with a trifle lavender in the color. The balustrade and railing should be made in ivory tint, being lavender in the shades and having white highlights and purple shadows. The lower arches should be given a deeper buff than the back wall and can be marblized with dark brown and cream colored veins.

Palms and plants should be painted as explained in former lessons. The candelabra can be painted in imitation of bronze with white porcelain shades over the lights. Following this color scheme, as given above, you will have a nice and bright looking scene in tasty colors, but to obtain more practice we should advise you to make three or four more models of grand staircase drops, changing color schemes in each new model that you paint.

## CHAPTER SEVENTEEN

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### ADVERTISING AND FANCY FRONT DROPS.

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THE front drop curtain in a theater is nearer the eye of the audience than any other scenery; it is down between acts, when the lights in the house are on. It will be criticised and scrutinized more closely than the rest of the scenery, and therefore must be executed with more care and closer attention to details than is necessary when painting a mountain scene or a cabin interior.

All colors should be pure and bright, but not gaudy; color harmonies should be studied closely and the general color scheme of the front drop should fit in well with the decorations used in the auditorium. If, for instance, the predominating color in the house is pink, the draperies on the front drop should not be painted red, nor if the color of the house is yellow or light pink. Green or purple draperies would harmonize with the above mentioned colors. If draperies on front drop are to represent heavy silk or satin fabric, the highlights should be strong and clear, and middle tints considerably lighter than the deep shades in which often are found reflections from the lighter part of the drapery. If velvet draperies are to be represented, the highlights should not be marked so sharply or pronounced and the shades should be deeper, darker and fuller than on satin. If woolen goods are represented, the highlights, if any, should be very subdued. A good combination is found in rich velvet overdrappings hanging over lighter colored silk draperies below. Fringes, tassels, pompons, ornamental borders, etc., help to lend richness to the draperies and should be highlighted strongly in the light parts, but not in the shades and shadows.

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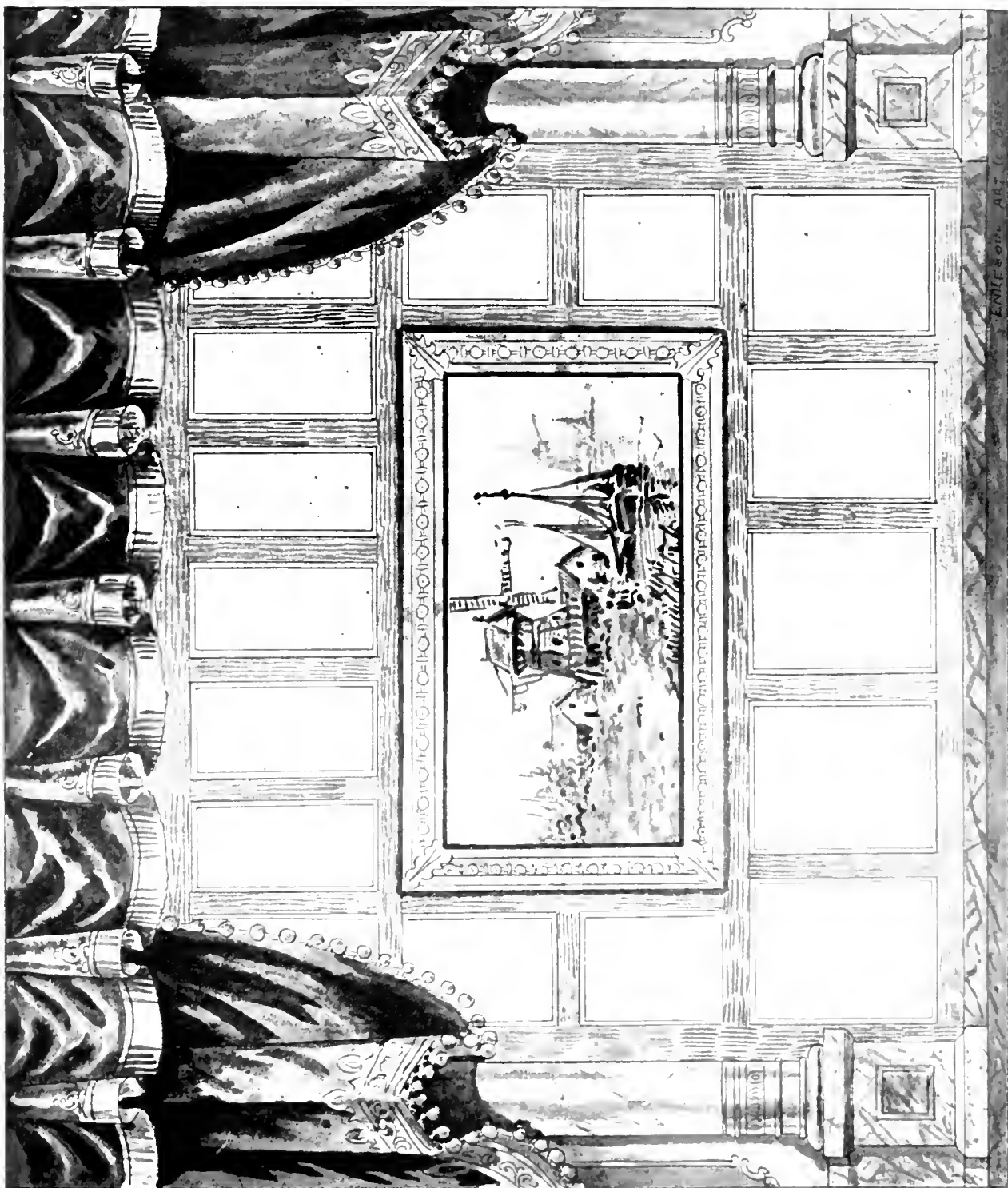
### ADVERTISING DROPS.

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These drops are often found in smaller houses, as they yield a revenue to the proprietor of the house or to the agent who has solicited the advertisements from the local business people; they are never as artistic or



PLATE 14.





pleasing as a drop without advertisements, and therefore are hardly ever found in high class theaters.

On Plate 14 we show an illustration of a plain advertising front drop curtain with fourteen spaces for advertisements; these spaces can, of course, be increased or decreased, as the occasion may demand. The top of the curtain is embellished with a Valance border, representing rich silk draperies with gold fringe around the edges: silk draperies of a similar color are also hung over columns at either side of curtain. These draperies can be made in any shade or color harmonizing with the general color scheme of the auditorium in the theater, and should also harmonize with the background of the advertisements. A light green, a deep red, or a lavender are good colors for draperies. With the lavender draperies the background for the advertisements may be a very light pink or pea green; same background color can also be used with red draperies. With green draperies a very light lavender shade would form a harmonious background color for the advertisements. The frames around these advertisements should be made to represent old mission colored wood; the highlights on same should be made a very light green and flashed on from the middle towards the corners: the shadows should form solid lines and be made from a blackish purple tint. In the middle of curtain is a landscape picture of an appropriate design surrounded by an ornamental frame that is painted in gold ground and highlighted with light chrome yellow and shaded with a dark reddish brown. A small stenciled border can be used on middle molding in frame. The column spaces shown under draperies should also represent gold or bronze, and the shafts and pedestals of columns should be marbled. After having finished one model, according to these directions given here, design three or four different advertising curtains, using your own judgment in the designing, and in one of these do not confine yourself to square spaces for all of the advertisements, but make some of them into circles, ovals, scrolls, banners and the like, but whatever design you make, be sure to use good taste and do not get it over-elaborated with details and fancy work.

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### FRONT DROP CURTAINS.

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The front drop curtain, illustrated on Plate 15, is a replica of the famous drop curtain at the Royal Theater, Copenhagen, Denmark, which was painted about fifty years ago, by one of the most noted European scenic artists. It

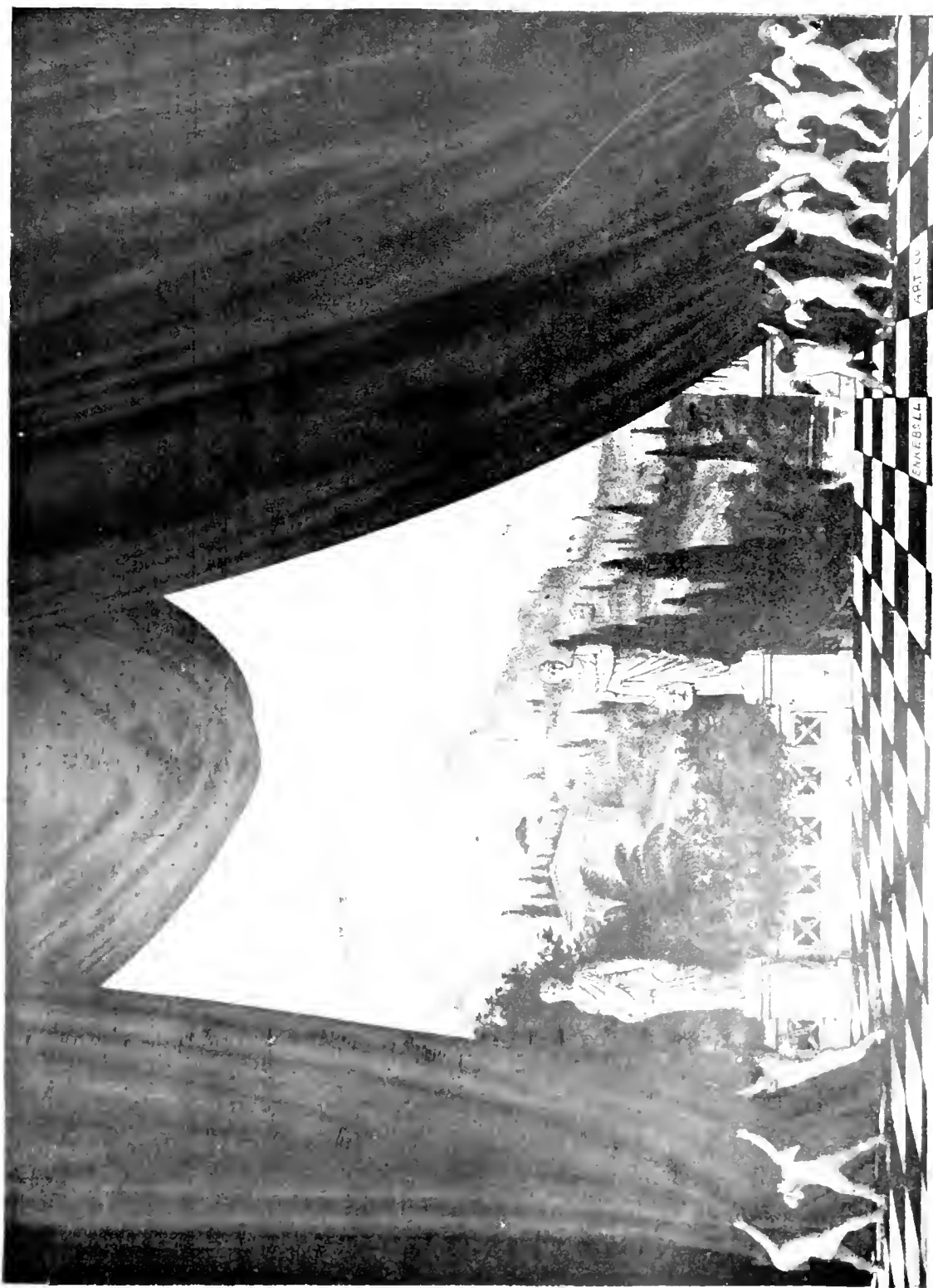
makes a magnificent and very elaborate curtain, but is not of the easiest design to duplicate. However, as it is very instructive, we have selected this design for a model, as you can learn a great deal by the making of colored scenic models from this splendid and historically correct design. Directions for painting this in fresco colors follow below.

The large draperies in front should be painted so as to represent heavy woolen goods of a deep rich red color; for instance, deep turkey red. No distinct highlights are required, but the shades should be made with two deep reds, verging on a blackish purple in the very deepest shadows. When making the sketch for this design be sure to draw a correct outline of the folds, so that they fall in the same directions, as indicated in the halftone illustration. Behind these draperies is shown a vista of a Grecian landscape, with the temple of Olympus on top of the mountain and in the foreground, on the rose-covered balustrade, stand two statues of Thalia (the muse of comedy) and Melepomene (the muse of tragedy). Thalia has for her attributes a shepherd's flute and a tambourine; Melepomene, a drawn dagger and a large mask. The curtains are pulled away from this scene by the aid of nine winged Cupids.

After having sketched in the drop correctly, proceed to paint the sky behind the mountains. It should be a light, bright blue at top, mixed from sky blue or Italian blue, with zinc white. As it comes nearer down towards the horizon the color gets more white in it and also a trifle yellow. The last sweep of the sky over the distant hills has no more of the blue in the tint, but a trifle orange to warm up the color.

The hills or mountains in the farthest distance are painted a very light red on the left side and a light lavender on the right side. They should be painted in when the outlines of the sky are still wet, so as to obtain soft, indistinct outlines blended somewhat into the sky color. The mountains in the middle distance are yellowish red on the left side, with some bright, light green showing here and there. The right side is covered with verdure and trees, that are lighter in tint the farther away from the foreground they are. The trees are yellowish green on the left side, light olive green in the middle and bluish green on the right side. The light comes from upper left corner. The large cypress trees, directly in foreground, are darker and more brownish green than the rest of the trees. The palm leaves in front of middle temple are light green. The climbing roses hanging over the balustrade show more yellowish green in the foliage than the trees farther away. The nearer slopes of the mountains are light green, mixed here and there with a trifle light red and orange. The tem-

PLATE 15.





ples are light red where the light shows, lavender in the shaded sides, and light purple in the deep shadows. These colors should be lighter the farther away from the foreground the buildings are located. The statues are painted white in the light parts, yellowish in the half lights, with a light red touch here and there; light lavender in the shades and bluish purple in the shadows. The statue of Thalia shows only part of the left arm, tambourine and lower draperies in the light, the rest of the statue is in the shade from the curtain in front, being a light lavender, shaded with bluish purple. The balustrade is a yellowish marble, showing light, greenish blue veins here and there. The floor is made of white and black marble tiles. The farthest row of these are, alternately, pure white and deep purple; the middle rows, light yellowish white and purplish black; the front rows, light whitish lavender and solid black tiles. This gives the correct color perspective.

In order to get the correct perspective in the tiles, the vanishing point should be laid at the upper left corner of pedestal on which statue farthest to the right stands, partly hidden by draperies. The Cupids should be sketched in in their true proportions, and a flesh color for the lightest parts should be mixed out of zinc white, orange and a trifle chrome yellow medium. For the darker or shaded parts of the bodies the same tint with an addition of a little burnt sienna, and in the deepest shadows burnt umber can be used. Lines in between fingers and toes should be made with a deep red. The hair of the Cupids should be, for some of them, light yellow, shaded with orange and brown in the shadows, and for others, brown, shaded with purple and black. The wings should be white, with a lavender cast in the shadows and outlined in between the feathers with blue. From these directions, we are confident that you will be able to paint a front drop of this magnificent design. If you should not succeed the first time, try again; put your first study on the wall of the paint room and go to work again, finding all the mistakes and shortcomings in the first model, and correcting them in the new one that you are making.

Having made a satisfactory model of the above described design, you should choose a different landscape and paint that in the space below the draperies. This time, if so desired, the Cupids can be omitted and the draperies appear as if they were hung over the balustrade, showing the form of the balustrade behind the folds.

## CHAPTER EIGHTEEN

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### MODERN STREET SCENES, ANCIENT AND ORIENTAL STREET SCENES, SET HOUSES.

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WHEN making theatrical scenery or theatrical scenery models with street scenes as models, you must be careful to get the perspective exactly correct, color perspective as well as linear perspective, and you must be sure that all of the vertical lines of the design are absolutely plumb. In laying out a design for a street scene remember that the stage is always elevated some above floor of auditorium; the vanishing point should therefore be laid rather low, that is, below the level of the eye of an ordinary sized person, and it should also be laid not exactly in the middle of the picture, but rather over to one side, the shaded side of the street preferable. On Plate 16 we shall give directions illustrating an ordinary street in a medium sized town. We shall give directions to this design, as there are such an enormous lot of American street scenes illustrated in the magazines and on post cards that it will be a very easy matter for you to obtain one, selecting something that will not be too elaborate or too full of detail. When you are planning a street scene remember that the colors get cooler and grayer and the outlines more indistinct and the detail less the farther the object is away from the observer, and also remember that the shades and shadows should be cool and purplish, while the lighted side of the street should be in a warm, rich coloring, with well-defined highlights and sharply cut shadows, and the nearer the buildings come to the foreground the more ornamental and more full of detail they ought to be. Persons, wagons, street cars, or any other movable objects should never be introduced in a street scene for theatrical purposes, unless, of course, that a special occasion demands this. In the illustration of a modern American street that accompanies this chapter, the perspective vanishing point can be found over the middle of sidewalk to the left at a little less than one-third of height of scene. All receding lines should converge in this point. These lines can, when model is painted on a large scale, be snapped with a blackened chalk line that your helper



holds at a vanishing point, but when making a small scale model these lines should be drawn with a straight edge. When starting to lay out this scene begin with the vanishing lines of the two sidewalks, then draw the perspective lines below and above the window, awning and cornices, and next set off the vertical lines between the building and windows. All curves, arches, circles and the like will have to be drawn in free hand. When you have a true and well-balanced charcoal outline sketch of the scene, start the coloring of same. Paint a nice, clear, light blue sky, tone it towards the horizon as usual, paint all buildings to the right in the sunlight in clear, bright colors, make these paler and mixed with more white the farther away from the front the houses are, and be sure that your shades are correspondingly light in the distance, using a very pale lavender for the deepest shade lines. This color should be deepened as you come nearer the front building. Below all of the arches, doorways and cornices are strong, well-defined shadows. When properly painted, these will help to give illumination and brilliancy to the lighted piece of the scene. The large protruding building in the middle distance should be painted a color a trifle stronger than the building in the light side at about the same distance from the observer, but a trifle lighter in color than the corresponding buildings in the dark or shaded side of the street. The very much foreshortened house fronts, on the shaded side of the street, should be painted without much detail work in several shades of lavender and purple, while the side of the awnings should be painted in bright colors, as the sunlight strikes these objects. The corner of the building to the extreme left is also in the light, bright colors. The houses to the left throw a purplish shadow over the sidewalk and on the street; this should be put in while the color is still wet, so as to obtain soft outlines of this shadow. The color of the street starts with a very light cream and gets a trifle darker and more brownish in tone as it reaches down towards the foreground. The building on the extreme right is a moving picture house, and you can fix the lobby of same as elaborately as you may wish, with panel pictures and gaudy colored posters. After having made the street scene according to design just described, obtain a collection of post cards or any other reproduction of American streets and select some of these which will make good street scenes for theatrical purposes and paint about three or four of these different views.

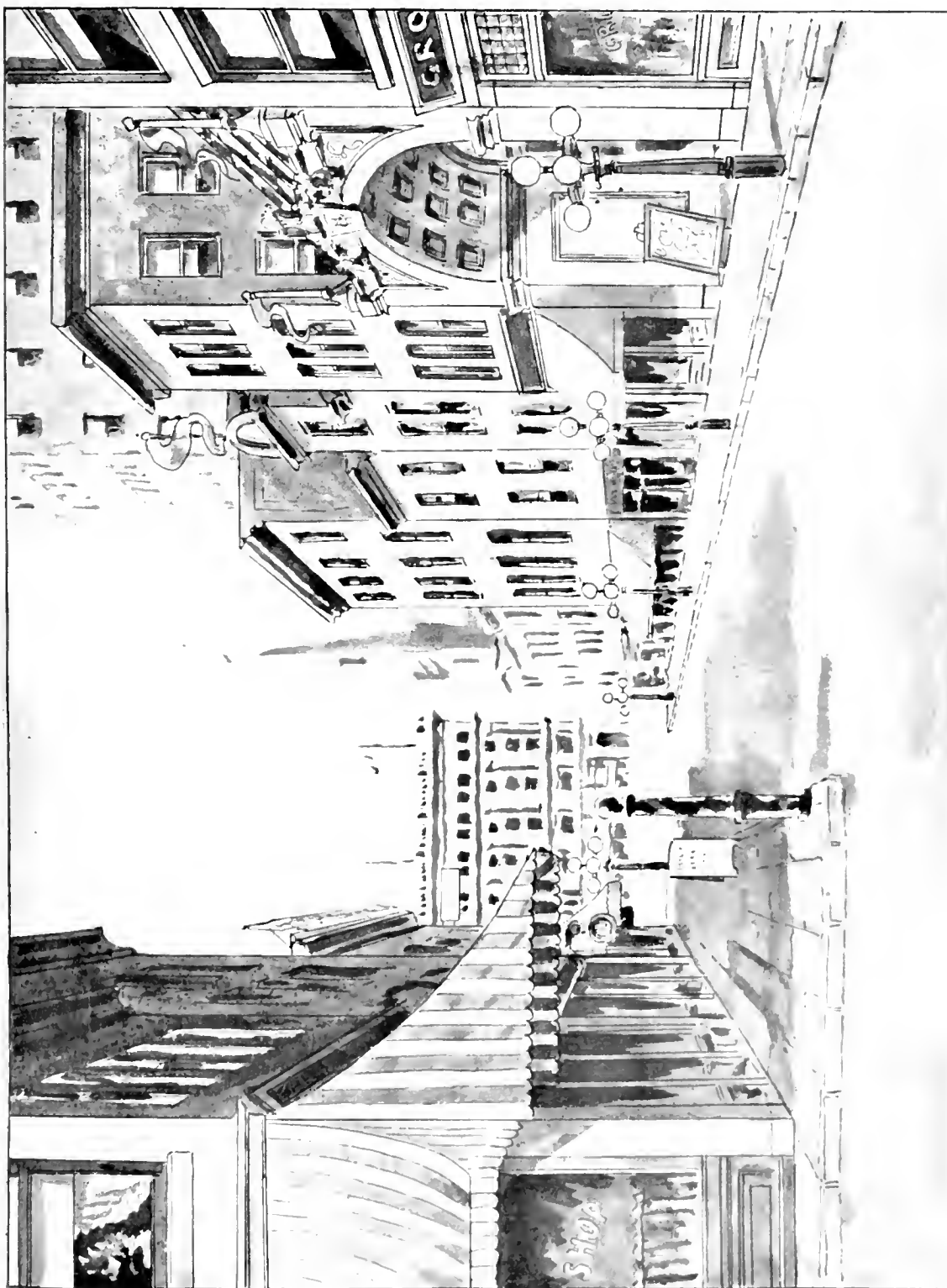
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### **ANCIENT AND ORIENTAL STREETS.**

The ancient and oriental street forms a great deal more picturesque view than does the modern American street, with its uniform, cubelike and

often hideous looking buildings. When painting an ancient city under southern skies remember to obtain brilliant sunlight effects, having a deep blue sky above and purplish sharp-defined shadows below. You can easily obtain views of ancient Grecian and Roman temples and other magnificent buildings; these are generally marble structures and the sunlit marble surfaces should be painted a very light cream, or even a light pink in the sunny places, and should be lavender or even purple in the shadows. The ancient Grecian and Roman scenery is not used a great deal in modern theatricals. More use can be found for oriental street scenes, either ancient or modern, and we shall, therefore, in the coming paragraphs, describe the painting of such an oriental scene. The scene represents the minarets and cupolas of the oriental city that is seen in the evening illumination. In the far distance is the mountainous landscape, and in the foreground a few palms and tropical shrubbery. Sketch in the usual way, taking great care that all the vertical lines are perfectly plumb. After having obtained these outlines of the tower draw the spires and cupolas free hand and also the balconies and railings. After the whole scene is properly drawn, start to paint a sunset sky, as explained in chapter dealing with skies. The far distant mountains should be painted in while sky is still wet, so as to secure soft blended outlines of same. The colors should be lavender and light rose, turning into a yellowish green as the mountains come nearer to the middle distance. The buildings in the town should be painted several shades of light cream color on all the sunlit sides turning to the left, and the shaded sides of the buildings and the minarets should be light lavender and cool grays. The window and detailed ornamentation should be put in with a reddish purple; cupolas are pale yellowish, running into an orange and a grayish lavender. Two of the minarets are built of white and red striped brick. The city wall in front of town should be painted a warm orange and a light brown, and should be shaded with deeper red and brown in places to indicate different colored stones. The shaded parts are a reddish purple. Vines hanging over the parapets are a light yellowish green, shaded with a bluish green. The road running into the city starts with a light orange tint and gets a trifle lighter and cooler in the middle distance. The palm trunks are reddish brown, the foliage a yellowish green, shaded with a reddish olive; the flowers in the foreground are reddish pink, highlighted with a bluish white and shaded with a deep rose. The rocks are light chocolate brown, shaded with purple. When model or scene is finished leave it for a while on your workstand or paint frame and do something else to distract your mind from the subject. When you then return to your work, take in the whole scene in a quick glance and

PLATE 16.





if any color value strikes you as being wrong, glaring, inartistic or out of keeping with its surroundings do not hesitate to paint it over and retouch it until it has the desired effect. This method of leaving your finished work for awhile and returning to it again is a good one and should be practiced frequently when executing a difficult piece of work. Faults and mistakes that you could not see before will now be apparent to you and can consequently be corrected. After having painted the oriental street, as described above, select three or four different preferably colored, illustrations of other oriental cities, and make scenery models from these illustrations.

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### SET HOUSES.

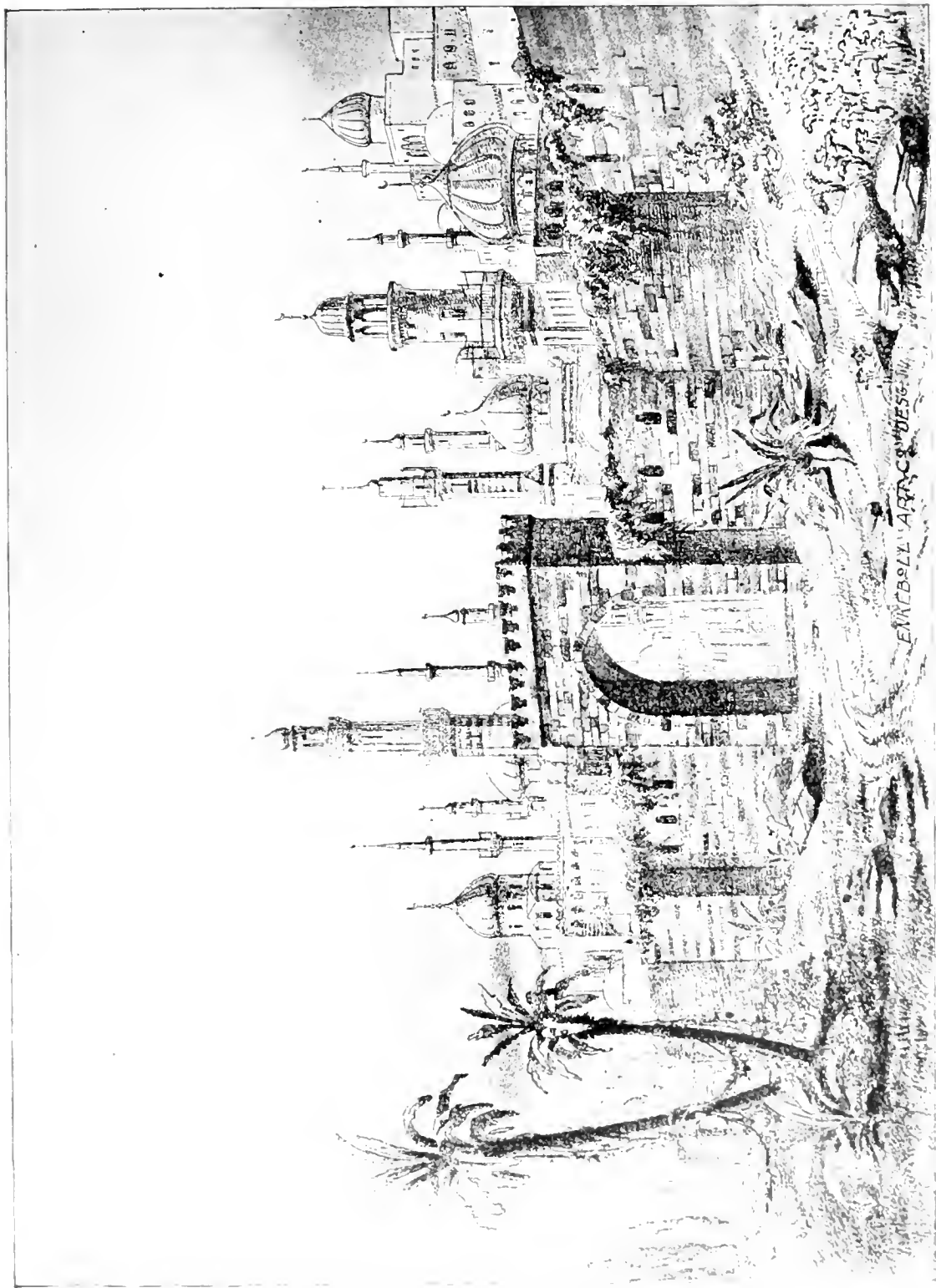
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A "set house" in the language of the theater means a mounted piece of scenery and generally representing the front of a house and often having practical doors and windows. These houses are called "cabins," "plain houses," "mansions," etc., according to the building they are supposed to represent. The easiest to paint are the Mexican adobe houses or the southern or western log cabins. A set house can consist of one or more pieces of "flats" that are secured to the stage with braces and stage screws and lashed together at the corners the same way as interior flats. For the mounting of set houses read directions for mounting of scenery given in another chapter. Adobe houses have very small windows and door openings, roofs and often flat walls should be painted to represent sun-baked clay. Pots with flowering cactus can be used to enliven the dull colors of the set pieces. These can either be real or painted on the scene. An exterior of a log cabin is made similar to the interior already described, only be sure that the corner shows the paint on both sides and the ends of the log cabin meeting at right angles and extending out about three or four inches. A "plain house" is generally painted as an ordinary frame structure covered with siding and having a porch or veranda in front. This must be mounted separately.

"Mansions" are of many designs, either colonial manor houses with great Roman porch pillars or of continental architecture in many variations. In order to be able to paint an ancient as well as modern dwelling correctly the pupil should acquire a good standard work on architecture and study different styles carefully. A very great help to the serious minded student of theatrical scene painting in all of its phases, would be a small but select library of good illustrated reference books, such as an "Encyclopedia Britannica" and an illustrated "History of the World," and an illustrated "geography."



PLATE 17.



## CHAPTER NINETEEN

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### LANDSCAPES, WOODS, GARDENS.

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THE problems in theatrical scene painting that so far have been given the pupil to do have been of a nature that called more for mechanical skill and correctness in their execution than for artistic feeling and talent. True enough, that in order to make pleasing interior settings, the theatrical scene painter must know a great deal about harmonious color effects and tasteful ornamentation, but nevertheless, it is first when he comes to paint the different exterior settings that are used on the modern stage that he has to utilize every bit of his artistic training and employ all of his artistic talent to the best of his ability.

We therefore earnestly urge the pupil to recapitulate a great many of the chapters given in the first part of this book before he begins the painting of actual scenery—models of landscapes, woods and gardens. We should especially recommend that he study up on linear perspective, landscape drawing from nature in pencil and crayon and landscape painting in water and oil colors and that he make a complete set of original sketches from problems demanded in this chapter, before he is satisfied that he is able to make a creditable and artistic landscape sketch from nature in black and white and colors. By following this advice much time will be gained and much useless work and disappointment avoided.

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### LANDSCAPES.

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The landscape back drops used on the stage are of many varying designs, their subjects taken from almost every country on the globe, and we should advise the student to purchase some well illustrated works showing views from various countries in the world.



There are a great many of such books that we recommend on the market. We can recommend "Burton Holmes Travelogues" or a yearly subscription to "The Mentor" as being especially valuable. It would also be a very good plan to start a collection of clippings of the best that appear in current papers and magazines.

The prints should be neatly trimmed and a short description of what they represent be given on the margin. They should then be assorted according to subject and should be marked plainly with the name of the subject they contain, as, for instance, "mountain scenery," "snow scenery," "marines," "cities, modern," "cities, foreign," "cities, ancient" and so forth and so on.

When called upon to paint a special landscape drop for some certain play the scenic artist will then not be left to draw on his imagination or memory, which at its best, is always a ticklish and uncertain undertaking, but can turn to his collection of prints or to his illustrated books and always find just the scene that is wanted, which he, of course, in most cases will have to adapt to the conditions demanded, but which he now can depict with historical and geographical correctness.

The illustration accompanying this assignment is the reproduction of a water color sketch of one of the Niagara Falls, and as it contains details showing a distant city and landscape, a river, a waterfall, and rocks and trees in the foreground, it has been selected as a study containing many of the different problems to be encountered when painting landscape for theatrical scenery. We shall give a short description of the colors and tints to be used when painting a scenery model or piece of actual scenery for this illustration.

The directions given below are for the use of water or fresco colors to be mixed with glue and whiting in the usual way, as formerly described.

The sky consists of a mixture of zinc white, chrome yellow, lemon, and a trifle sky and ultramarine blue. The shore is a light bluish lavender shaded here and there with ultramarine blue. The shore is a light lavender shaded here and there with a darker, more reddish lavender and having a light green field on the crest of the cliffs to the right. The houses and buildings are very light red and lavender, retouched here and there with a little darker brownish red. The water in the river is first painted a very light bluish green and then highlighted all over with even strokes of white with a trifle of yellow in it. This must be done so as to represent the white foam from the turbulent, surging stream, the waterfall proper being

painted in a similar manner. The under painting is white, yellowish white and light green and bluish white, with a trifle lavender in the foreground and a reddish purple showing through in the nearest falls. When partly dry the underpainting should be retouched with white, applied so as to represent the foam and ripples of the falls under the bridge. This and the rocks and tree trunks in the foreground are laid in with bright brown and deep orange and highlighted with slate gray, purple and light brown and greenish yellow and shaded with a brownish purple in the deepest shadows. The trees are laid in with an olive green that grows lighter towards the edges. When dry the stems and branches are put in brown and the effect of leaves laid on in lighter and darker green.

When having completed a satisfactory sketch of this design make another substituting a different landscape in the foreground and showing more of the river.

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## WOODS.

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The professional name for a backdrop representing a forest is either dark woods drop, when the scene is painted in dark shaded and tints and showing no landscape in the background, or light woods drop, when the general scale of color is lighter and the tree trunks further apart, often disclosing a view of a lake or open country. The illustration shows such a "light woods drop" of a design especially well adapted to the needs of the smaller as well as the more pretentious theaters.

Below will be found a few general directions for making scenery models or actual scenery painted in distemper colors from this design.

After having stretched and sized your muslin on your easel or paint frame start to sketch in the outline of the design in charcoal. Next start on the sky shown over the distant trees. This is a "plain sky" starting with a light blue tint mixed from whiting, zinc white, and Italian or sky blue. This tint blends softly into the lighter blue and ends up with a slightly yellowish. The trees on the farther side of lake should be painted in while sky is wet, so as to secure soft blended outline of the trees, shown against sky.

The shaded side of trees is light bluish and pinkish lavender blended into each other. The trunks and branches are a trifle deeper lavender and

PLATE 18.





bluish. The light part of the foliage is a brilliant light green, made from zinc white, yellow chrome, lemon and a trifle foliage green or chrome green light. The lake is light blue with deeper shades and white reflections. The shrubbery in middle distance is very light yellowish green with darker green shading. The grass border is painted the same colors. The background behind the foreground trees is light yellowish in places, light green and brownish orange in other places.

The tree trunks are a bluish pea green in the lighter places, a medium coffee brown in darker places and a dark Van Dyke or burnt umber brown in the shaded places.

The foliage is light pea or yellowish green on left (light) side of the crowns, light coffee brown (a trifle orange burnt sienna and white makes this tint) in the middle and brownish green and brown in the shaded side. The wall is light cream color near lake, gets a trifle darker as it comes nearer down the foreground and ends up in a lavender shade, showing brown ruts and wheel tracks in the near foreground. The bushes in the near foreground should be painted in the same shades as the tree crowns, only darker; the grass in the foreground consists of these same tints but should be painted with strokes up and down. The background for the foliage of trees and bushes should be painted in, softly blending the different shades, and when dry, should be "leaved out" with a foliage brush, which is a tool with long slender brushes holding well together in the stroke. In putting in the foliage lighter tints than the background color should be used, the brush marks should be placed close together in the lights and be farther apart and more indistinct in the shades. The slant of the strokes should be varied and according to the natural directions of the foliage depicted. After having completed a model from woods drop design accompanying this lesson, select three or four other colored studies of woods scene and make suitable scenery models from them. We must also urge you to study trees, landscapes, gardens and woods directly from nature, and make colored sketches in pastel watercolors or oil of such scenery. This is a splendid practice and no great and original results can be obtained where you only confine yourself to copying and neglect the great opportunities for advancement offered through painstaking study directly from nature.

---

## GARDENS.

For "close-ins," that is, for drops hung in "one" directly behind the tormentor a pleasing view of some ornamental or formal garden is very

often used and the practical scene painter will very soon be called upon to make "garden" drops. If you have studied wood scenery thoroughly and are familiar with the painting of trees, bushes and greensward and walks it will be an easy matter for you, profiting by this knowledge to combine these details and compose a pleasing garden scene. One of these might be arranged as follows:

In the immediate foreground a semi-circular garden walk, bordered with well trimmed lawns; in the middle of the semi-circle an ornamental fountain or sun dial; in the middle distance a yellowish brick wall having an open, ornamental gate in the middle surmounted with two ornamental pillars or posts bearing vases. Through the open gate is seen a distant landscape or mountain scene. Behind the wall the tops of tree crowns almost touch each other at top of scene. The larger part of trunks of these trees can be covered with flowering shrubs. Many other equally pleasing and artistic designs will suggest themselves to you and you should paint at least three or four different scenery models of garden scenes before you begin working on the next subject.

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### **TROPICAL SCENERY.**

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Tropical exteriors, generally called "jungle scenes," are often used in tropical plays or as settings for minstrel first parts. A person who can paint ordinary exteriors properly will find no difficulty in painting tropical landscapes. The illustration shows a tropical jungle scene. In painting this use bright and brilliant colors, especially so in the foliage and flowering shrubs in the foreground. All highlights on palms and large leaves should be put in sharp and distinct so as to give the scene the appearance of brilliant sunlight.

PLATE 19.







PLATE 20.



## CHAPTER TWENTY

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### THEATRICAL SCENERY PAINTED IN DYES AND OILS. SHOW-MEN'S BANNERS. DECORATIVE PAINTINGS.

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IT IS often found impractical for smaller traveling theatrical companies or vaudeville artists to carry the cumbersome and easily spoiled water color scenery that in transit always must be mounted on frames for "flats" or on battens for "hanging stuff." This kind of scenery, which is mostly used for stationary stuff or by traveling organizations using theatrical baggage cars, is often substituted with scenery painted in aniline dyes, which leaves the goods used soft and pliable and allows it to be folded and put in crates or boxes, requiring less room and costing less in transportation charges than the heavy and bulky "trunk scenery" by theatrical people. It is also used a great deal by companies playing under canvas or in airdomes as it is not as easily soiled or spoiled by dampness as fresco painted stuff would be, although it is not absolutely waterproof, as is scenery painted in oil colors.

Dye scenery is generally used either as "tie on stuff" or "tack on stuff." The first kind should have a pocket at bottom, large enough to accommodate a three-inch batten and at top a reinforced strip with eyelets through which short lengths of sash cord are run. These ropes are used to tie the scene to the top batten. The "tack on stuff" should be reinforced at top and bottom with two or three inch, strong and heavy hemp webbing to give greater wear to the goods at places that are continually being pierced with tacks. When used the "tack on stuff" is stretched and tacked on frames or on loose battens. When painting scene in transparent aniline dyes care should be taken not to soil the white goods when hanging it on paint bridges, as spots and dirt will show through dye.

Sketch in scene in the usual way and do not smear on heavy charcoal lines in wrong places, as they are hard to dust off and will show through transparent dye. A very stiff scrubbing brush can be used to eliminate wrong lines. The colors used in making dye scenery are either the usual

aniline dyes that can be had in ounce papers under various names as "Diola," "Diamond Dyes," etc. For large consumption we should recommend the commercial aniline dye sold in one-pound or five-pound tins by various firms. The most useful colors are a brilliant red, a wine red, a purple, a green, a yellow, a seal brown, a black and a blue, for these main colors almost any shade can be obtained by mixing the dyes together in different proportions or diluting with water.

Strong stock solutions should be prepared of the various stock color. Quart Mason jars are good receptacles for these as the screw tops prevent evaporation when color is kept for any length of time. These stock solutions can be made of various strength. The less water used the deeper the color. One ounce of dye to one quart of water makes a fair density of color. Stir the dry powder with a trifle of cold water into a thick paste and add a teaspoonful of ordinary salt. Pour a quart of boiling water over the dye and set over fire and bring to the boiling point. When cooled put in Mason jar and set away until required for use. Have a number of saucepans (enameled preferred) ready and use these for mixing your tints. The tints look a great deal darker in the pans than on white canvas, and a piece of white goods should be kept, on which the density of the dye can be tried before it is put on the canvas. This can either be left unsized or be sized with a solution of flaxseed boiled in water. Use a stiff brush with short bristles (an old worked down water color brush makes a good tool for dye work) and scrub in your colors well, being sure that the brush is nearly empty of color when nearing an outline. Have a clean rag handy with which to take up the drippings and wipe off surplus of color. Lay on the background first. Leave the white of canvas untouched for pure whites. Work from a lighter to a darker shade. For instance, when laying in background for trees make this lighter than the tree will appear when foliage and details are put on. In other words, the process is opposite to that in opaque distemper colors, where the lighter details are put on a darker background. When you have carried the work on your scene as far as you can with the dyes you can still heighten the effect by cutting all sharp and light highlights out with a bleaching solution made from chloride of lime dissolved in water. Use an old brush for putting this on with, as a stronger chlorid solution will eat off the bristles of your brush and spoil it. When dry, these highlights cut out with chloride should be rubbed over with a damp rag, so as to remove any excess of chloride, which, when left on, in time will rot the canvas. Highlights can also very successfully be put on with strong thick oil colors applied directly on the unsized muslin. When effects of gold and silver are desired

it will be the best way to size the place to be gilded with yellow oil colors and when dry apply the bronze powder mixed with oil and turps in the usual way. Dye scenery for larger theaters is generally made on fireproof goods. This can either be bought ready made or you can fireproof it yourself, spraying or brushing the compound all over back of the scene before painting is started.

We should advise you to start the painting of theatrical scenery in aniline dyes with very simple and easy subjects for your first attempts, such as kitchens, skies and plain border, etc., and as you advance in the knowledge of using this new medium select harder and more intricate subjects for your models. It will generally be found that interiors are easier than exteriors.

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### **OIL PAINTED SCENERY.**

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Tent shows, airdomes and other amusement places exposed to the elements generally use scenery painted in oil colors and thus made waterproof. When painting scenery in oil colors, the canvas should be given a thin coat of sizing, consisting of bolted whiting, mixed with linseed oil and thinned with turpentine or gasoline to the consistency of cream. After this sizing coat is dry the scene should be sketched in charcoal in the usual manner. The oil paints can be the usual oil colors sold in one or five-pound tins, and they should be bought mixed in oil and not in Japan. When used they can be thinned with turpentine or gasoline to the required consistency. It is easier to obtain beautiful, artistic and soft effects in oil colors than in any other medium used in painting, and the student should soon be able to obtain good results. Be careful not to smear your colors on too thickly or have them too oily as the finished painting then will have a disagreeable shine that is detrimental to the best effects under artificial light.

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### **SHOWMEN'S BANNERS.**

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The gaudy colored show banners that the barkers in front of the side show use to illustrate their talk of the wonders to be seen at the inside after

you have paid your dime, offer a great and interesting field for the versatile scenic artist with a vivid imagination and an eye for light and flashy color effects. Show banners sell at a higher price than that of ordinary theatrical scenery, and must be made stronger than this. The goods should be six or eight-ounce duck, sewed together with lap seams running up and down and have a two-inch hem or a webbing all around the edges, the corners should be reinforced in back and have double faced leather corners with large galvanized rings in riveted leather straps. When banner is of a considerable size it should also have several rings in leather straps fastened to the top edge. Most banners are lettered, describing and naming the wonder they depict. This lettering should be strong and bold. A white block letter outlined with black against bright red background gives lots of contrast and flash, as the showman calls it, as does also a red letter outlined in black against a bright yellow background. The subjects and sizes of show banners vary a great deal. Subjects often seen are: Fat men and women, snake charmers, wild men and girls, animals, especially Iguanas, called "Chinese dragons," alligators, monkeys, etc. Then there is the glass blower, the fortune teller, the electrical girl, the dancing girl, and the old plantation banner and many others too numerous to mention here. If you are good at figure work and animal drawing and have a fertile and vivid imagination you will find a splendid field for your ability in the ever increasing market for good show painting.

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## DECORATIVE PAINTINGS.

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The lobbies of the moving picture theaters and auditoriums, the interiors of saloons and cafes and many other public and private places are often decorated with oil paintings, either painted directly on the walls or on canvas glued and tacked to these, and here the ambitious person will find a splendid market for high-priced work if he is able to execute this properly. These paintings are made similar to show paintings only the material and colors should be superior, the workmanship better and more painstaking and the color scheme more artistic and refined, than that employed in the glaring vivid show paints. Another large field for the scenic artist is the making of backgrounds for photographers. These grounds are generally painted in distemper colors or dyes, in a monochrome consisting of whites and blacks only, the black being modified either with browns or purplish blues.

## CHAPTER TWENTY-ONE

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### TRANSPARENCIES, TRANSFORMATION SCENES, PROFILED AND NETTED WORK, BORDERS, LEG DROPS, TORMENTORS.

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#### TRANSPARENCIES.

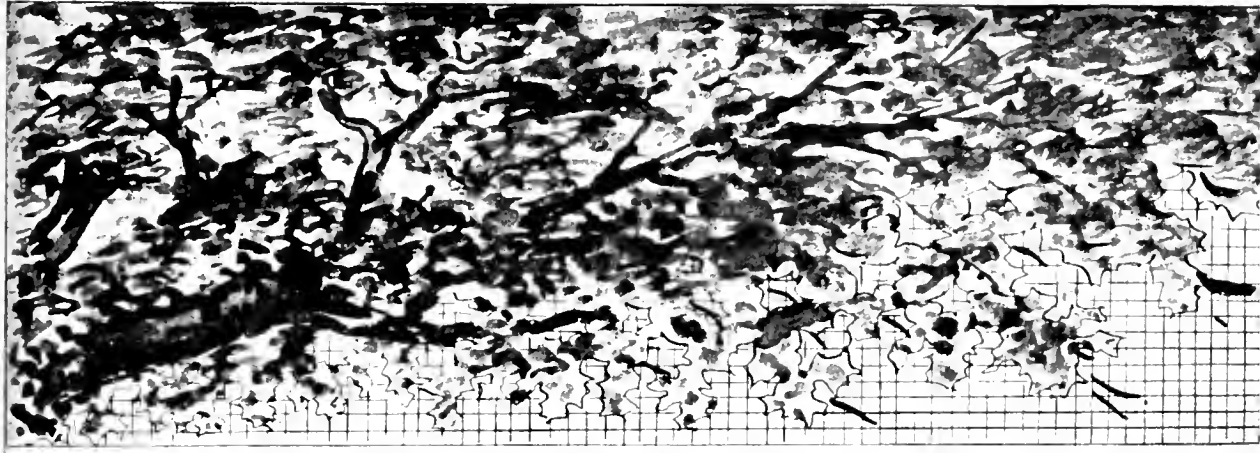


BEAUTIFUL transparent effects can be obtained on the stage by using scenery with parts painted in transparent and parts in opaque colors. Two distinct and different effects can be produced with such scenery by shifting the source of illumination from front to back.

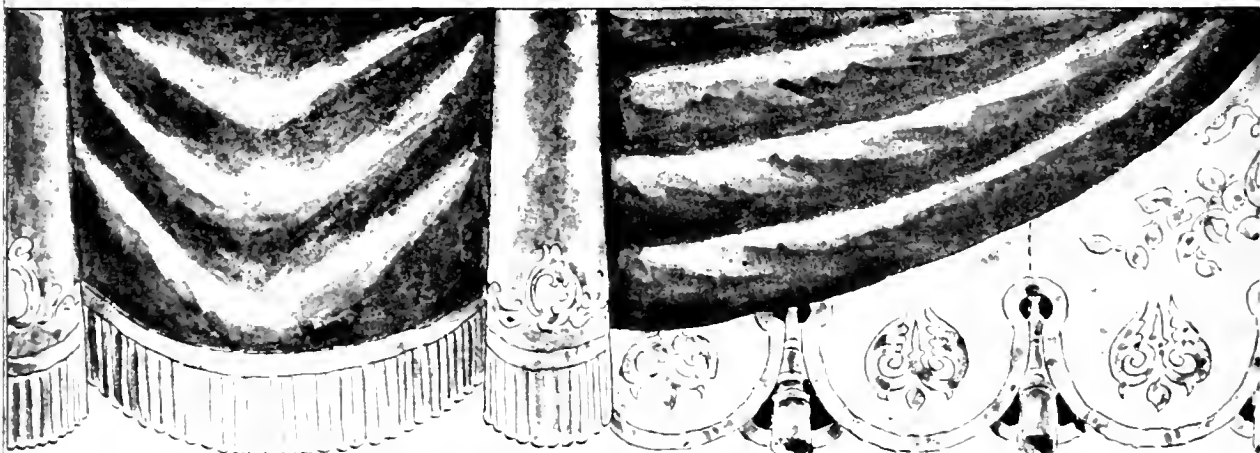
One of the best methods of painting this kind of scenery is described below. All transparent parts should be painted in brilliant dyes as described in former lessons, but must not be retouched in oil colors. All opaque parts should be painted in opaque fresco colors for stationary scenery or for stuff that can be rolled on battens. For scenery carried folded in trunks or boxes, the opaque parts must be painted in solid oil colors or can be painted in dyes, retouched in oil colors and furnished with an opaque backing for non-transparent parts.

We shall now consider these different modes of procedure in the succession as given above. The easiest transparencies to paint are those having transparent parts done in dyes and the opaque in fresco colors. For your first attempt at this kind of work use the palace arch drop, described and illustrated in a former chapter, as a model. After having obtained the correct outline drawing of the design, cover the columns, arches, draperies and all of the foreground except opening in ballustrade and landscape shown in distance, with the usual water color sizing on front of drop. When this is dry, size same part of back with an opaque sizing, made of some dark opaque color; for instance, Indian red. Next paint the landscape and water in brilliant dyes, substituting a sunset effect for the ordinary day illumination and painting distant mountain and city in dark purplish colors.

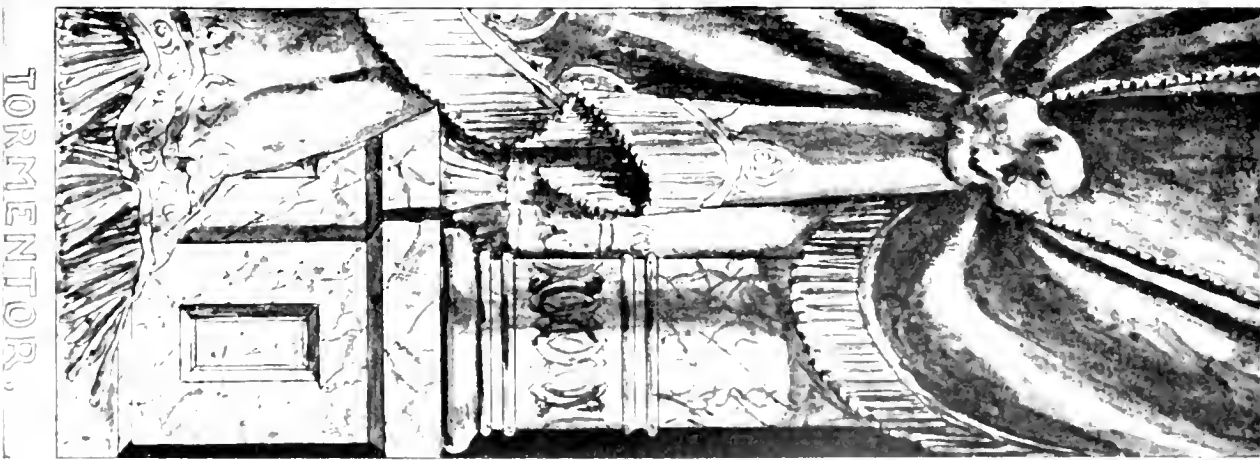
PLATE 21.



PART OF FOLIAGE BORDER, ( CUT AND NETTED. )



PART OF GRAND DRAPERY BORDER, ( CUT. )



TORMENTOR.





Another scene than the one mentioned can be painted in transparent part of drop. Finally paint all opaque colors in fresco colors as described in former chapter and the scene is done. When the even effect is desired the light should be turned off in front of scene and turned on behind. A sunset or evening effect can also be obtained if landscape is painted in full daylight colors and the mountains, shore and city backed up with semi-transparent purplish and dark bluish oil colors and orange or red lights used behind scene when transparent sunset effect is desired. If night effect is wanted blue light should be used behind scene when it is shown as a transparency. For your next transparency use more picturesque landscape showing lake, sky and possibly a waterfall. Paint on front of canvas in dye, water color or oil as the case may demand. Transparent parts, such as sky and water, must be painted in dye alone. All opaque parts should be given a sizing on back of canvas and then be covered with opaque color, oil for trunk scenery, and water color for stationary stuff.

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### TRANSFORMATION SCENES.

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A transformation scene is a drop or set piece painted in such a manner that it shows a different effect when lights are changed from front to back of scene and vice versa.

Properly speaking, each transformation scene consists of two pieces, the front, of which parts are cut out and covered with painted "serim," and the backing, which is seen through the meshes of the scrim when lights behind scene are turned on. For your first transformation scene, select the prison drop, as described and illustrated in a former chapter.

Sketch in in the usual way and cut out the middle arch. Procure some scene painters' linen scrim and paste it in behind this cut-out. The scrim should be fastened first with pins or safety pins stuck in the goods about one to three inches from edges (according to size of space to be covered) and stretched lightly and evenly over opening. Then the edges outside of pins should be pasted to back of scene with a thick flour paste, strengthened with glue. If the scene has to stand rough usage on the road it will be better to cover the edges with three-inch bands of heavy muslin, pasted on as described above. Next the part of scene appearing in the space covered with scrim should be stretched in and the whole scene

painted in water colors, dyes or oil as the case may demand. When painting on scrim and not using dyes, be sure that you empty your brush well of color and scrub this in sufficiently so that none of the meshes become clogged up with color but only the threads painted, otherwise a good clear view of transparent scene cannot be obtained. When painting is properly done it should be impossible to see, when lights are on in front, that part of it has been painted on different goods than other parts. Next paint any kind of a backing larger than the opening in prison scene, place this at a convenient distance behind opening, turn lights down in front and use brilliant illumination behind. The prison will then be dark showing the backing in full colors through the opening in middle which now appears as a cut-out. An appropriately costumed figure can be placed in front of backing but behind transformation scene. For instance, "Marguerita" from the play or opera "Faust" and many startling and wonderful effects can be obtained by this kind of painting and illumination of the scenery. Try five or six different designs of transformation scenes before attempting to do anything to the next problem.

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### **PROFILED AND NETTED WORK. BORDERS, LEG DROPS, TORMENTORS.**

---

Where no leg drops are used the space on top and between the wings is covered by strips of painted canvas called a "border" or sometimes "flies." These borders are on top attached to battens that can be raised or lowered by ropes running over wheels or pulleys in the stage loft. In smaller theaters one set of stationary borders, painted some neutral or light blue shade and called "plain sky borders," are frequently made to do for all kinds of setting for interior and exterior, but in more pretentious houses several sets of borders, including sky borders, interior borders, exterior or foliage borders are always to be found.

The plain sky border is best painted with a bluish gray made from a mixture of a cheap blue and whiting. The more pretentious sky borders should be painted in a brighter bluish tint, mixed from Italian blue and zinc white and the lower edge of this border should be cut slightly arched.

Interior borders should be painted to represent different kinds of ceilings from the rough log cabin loft to the most beautiful palace. Remember

that in order to give the true impression of lying flat over the wings at an angle of 90 degrees, these borders must be painted in a perspective showing a great deal of foreshortening. The foliage borders represent most frequently the tops of trees showing more or less horizontal branches, foliage and often some of the open sky. The plainer kind of these borders have only the lower outside edge and a few holes above it cut out around the leaves but the more pretentious ones of which a part of one is illustrated on the illustration herewith, are deeply cut in many places. In order that these cut pieces should hang straight and even it becomes necessary to support them with some material not easily seen by the audience. This material is sometimes light green or bluish gauze but more often one-inch mesh netting.

This netting is put on back of cut border or leg drop with some strong adhesive preparation called rosine. It can be done in two ways if sufficient floor space can be obtained, the piece to be netted should be cut out whenever needed and tacked flat to the floor with the back side up. A sufficiently large piece of netting must then be laid over the cut and secured squarely and evenly stretched so that each mesh forms a true square. This can be done by placing tacks at intervals at the edges. Now warm the rosin slowly until it obtains an easy-flowing consistency, and put it on with a small stiff brush over all the meshes, being close to edges of cut part. This process should be carried out over a surface of at least two inches from edges of cut parts and care should be taken that the little knots at the intersection of the meshes are fastened squarely to the canvas. Allow from six to twelve hours before removing tacks and rolling it up. If space in studio does not have sufficient floor space to allow scene to be stretched on floor the above described process must be executed while scene is hanging on paint frames, that in this case should not be hung flush to the wall but have sufficient space for the operator to get behind it.

The netting must now be secured tightly and evenly at the back of part to be cut. It can be fastened with safety pins. The top and sides must be glued first as described above and lower edges of netting stretched either to the canvas to be cut away or to paint frame as case may be. When netting is tight and secure start to cut inside holes out, having someone hold the netting away from the space to be cut, so as not to cut the meshes with the shears. When all the inside holes are cut, hold a small board pressed against the cut parts from the front while you are gluing the the meshes around holes from the back of scene. When all inside holes have been glued, cut away outside of scene with exception of the lower

side, if netting is pinned temporarily to same, and proceed as before, to glue cut sides to netting. A few experiences with netting scenery will soon make you an adept at this process that is purely mechanical and in all large shops is done by assistants or apprentices and not by the artists themselves.

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### **LEG DROPS.**

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In the place of a border and a pair of wings that in smaller theaters generally are used to screen the backdrop, a so-called "leg drop" having an open space and two "legs" hanging down on each side and connected and forming one piece with the border, will form a better and more artistic backdrop. Plate No. 22 with this assignment shows an illustration of such a cut exterior leg drop. Paint in a color scheme to correspond with backdrop of woods scene, explained in a former chapter, and while on paint frame, place a strip of netting over parts to be cut out. If this scene is painted on a small scale the parts to be cut out can be left untouched if scene is to be used on stage. The whole drop should be netted and after work is completed an opening can be cut in the netting to allow the actors to pass through the scene, if this should be found necessary. The two set pieces of stone wall should be mounted on frames covered with "profiling" that must be cut out to correspond with outlines of design.

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### **TORMENTORS.**

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A "tormentor" is the stage name for the first two stationary drapery wings on the stage. These have a border to match which is called "grand drapery border" and which in larger theaters has a cut-out in the middle extending over towards the tormentors behind this cut-out and in line with top of tormentors is hung another movable drapery border.

This border is in stage lingo called a "teaser" and by raising and lowering it the height of the stage, visible from the audience, can be regulated and scenery of different heights properly screened in. There are various designs of tormentors, teasers and grand drapery borders which should be painted to represent either shiny satin or dull velvet and should be painted

PLATE 22.





in rich brilliant colors, the over draperies of a darker shade, the under of a harmonious but lighter color. The gold ornamentation should be laid in rich Dutch pink and heightened with chrome yellow lemon. The marble column and base should be painted as already has been explained.

## CHAPTER TWENTY-TWO

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### DIRECTIONS FOR MOUNTING AND INSTALLING SCENERY IN SMALLER THEATERS.

---



LL first-class theatrical scenery painted in water colors is, when unmounted, necessarily frail, easily soiled stuff, and should therefore be handled very carefully while being mounted, and all dirt, moisture and sharp folds of the painted fabric should be particularly avoided. If it is not possible to mount scenery at once after it has been painted store it unrolled in a clean, dry place.

All "wings," which is the name used for flat pieces to cover the sides of stage, should be mounted on frames of light, close-grained wood; clear white pine is the best lumber to use. All stiles, rails and cross-pieces should be made of 1x3 or 1x4 inch boards; braces can be made of 1x2 inch stuff.

The first figure shows a simple frame, strong enough for all smaller wings. Corners can be made with mortise and tennon if preferred to a nailed corner as shown in illustration. If wings are to be cut to shape at front side, this side should be "profiled" with thin slats of wood, which can be bought in three-ply veneer, or ordinary shingles strengthened with gauze, glued to the back may be used for profiling. See Fig. 2. Practical doors and windows can be made of 2x1-inch stuff, as indicated in Fig. 3.

When mounting painted canvas on frames care should be taken to stretch the painted cloth tightly and evenly on frame; it is best, however, to tack canvas on frames of all flat stuff and set pieces before painting same. The cloth can, if so desired, be lapped over front and back stile and tacks driven in back of frame, but top and bottom of canvas should be cut flush with edges of rail and tacks driven in front side of wing. A better, but more difficult way of mounting flat pieces is to stretch cloth to inner edge of frame and drive the tacks half way on this edge, then glue the overlapping edge of cloth to front side, or rather top side of frame, using a thick solution of strong carpenter's glue and afterwards trimming surplus of cloth flush



# PLATE 23.

## ILLUSTRATIONS FOR THE MOUNTING OF SCENERY

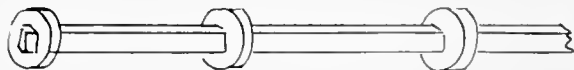
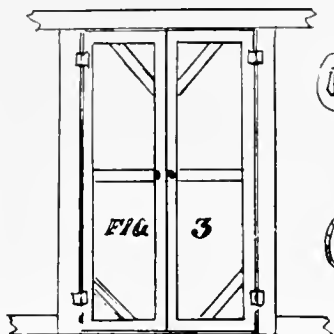
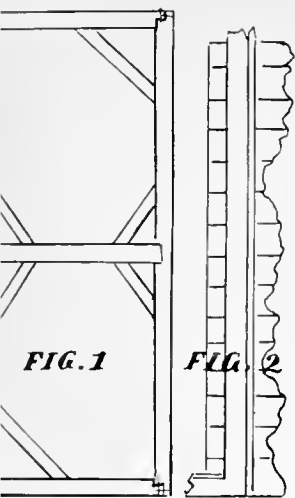


FIG. 4



FIG. 5

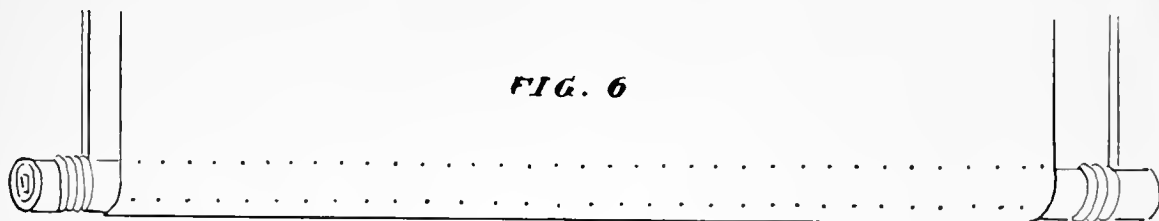


FIG. 6

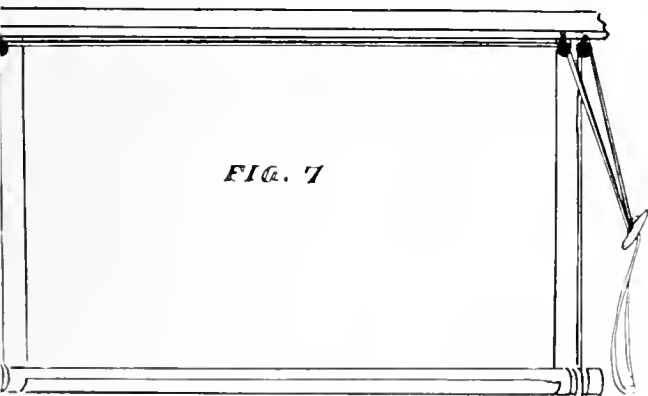


FIG. 7

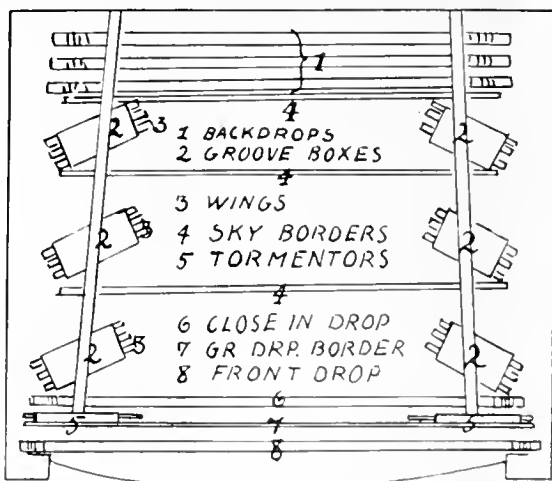


FIG. 8

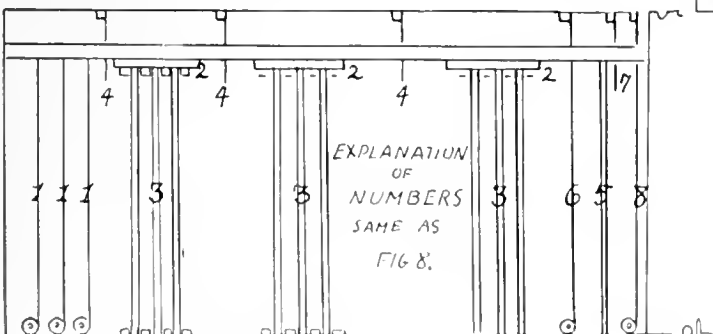


FIG. 10

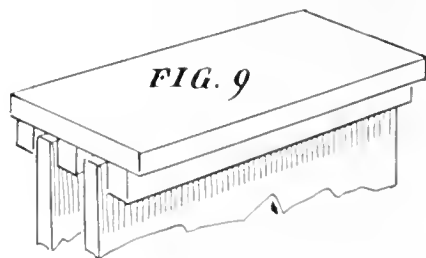


FIG. 9

with edges. When glue is perfectly dry tacks can be removed. The drops should be tacked on top batten made of two 1x4-inch clear, white pine boards, one being nailed to front, the other to back and top curtain with drop in between them.

If there is no room in rigging loft for drops to go up straight, the bottom batten that otherwise is made like top batten should be replaced by a roller three or four feet longer than drop is wide and drop should be rolled up from the floor. When tacking drop to top batten be sure to get it on square. This is especially important if drop is an interior with straight lines running parallel with bottom batten. This batten should be made similar to top batten and should consist of two 1x3-inch boards with bottom of drop tacked in between them; no bottom batten is needed where drops go on rollers. Drops should be hoisted in place and secured by two lines, consisting of heavy sash cord, running over large, easy working pulleys, secured to ceiling beams in rigging loft. If drop is to be rolled it can be made on 2x4-inch half rounds three or four feet longer than drop and nailed together over lower edge of drop. If drops are more than 18 feet long these solid rollers often sag in middle and in this case it would be better to use skeleton rollers that are made as follows: For batten use a piece of 2x2-inch clear lumber three or four feet longer than drop. Secure to this scantling at about six inches in diameter. See Fig. 4. On these circular pieces nail lattice strips or lath to form the roller. If this should not be stiff enough when completed it can be stiffened with narrow, cross-laid bands of sheet iron. See Fig. 5. Drops should be tacked to front side of roller and about six or eight inches of painted cloth carried under roller and glued and tacked to back side of same. See Fig. 6. When all drops are hung in place and battens or rollers have been attached to them these should come about one-half inch off from floor. They will then through their own weight hang perfectly smooth if they have been tacked on straight. All drops on rollers should be rolled from bottom as indicated in Fig. 7. For ropes use sash cord and secure sufficient length to protruding ends of rollers. Carry ropes through large, easy-running pulleys screwed into ceiling beams and down to a boat cleat on wall. When pulling down ropes curtain will be raised.

If stage screws and braces are not used to secure wings, these should be run in grooves made of 1x1 inch pieces as long as wings are wide and nailed to stage floor, slanting towards back wall. See Fig. 8, which should be parallel with front wall. The space between the groove boxes, Fig. 9, consists of a board as long as the width of the wings, to which has been

nailed strips of 1x2-inch boards as far apart as the grooves on the floor. Where stage loft is higher than the wings, these groove boxes should be nailed to a 2x4-inch scantling about 4x4 inches at the same angle as grooves on floor and directly over them and about one-half inch higher than wings, so these will slide easily in grooves. To the scantling that carries the groove boxes can also, if desirable, the top batten for drops and borders be attached as indicated in Fig. 10. All borders should be tacked to battens similar to those on drops. In larger theaters the borders can be raised and lowered at will but in smaller stages they are as a rule found stationary. Scenery in smaller theaters is generally hung in the following order: Grand drapery border, right on top or directly in front of tormentors, should come down about six or eight inches lower than top of tormentor; picture screen directly behind tormentors; street scene or act drop (when used as a "close-in") about two feet behind picture screen and in front of first pair of wings; first sky border above or directly behind first pair of wings; second behind second pair, and so on. Then kitchen, parlor and woods drops. This order can be changed to meet individual conditions. Wings should be slanted and put so near together that no space is visible between them from opposite side of auditorium. Borders should be hung so low and so close together that they cover all ceiling space as seen by a spectator sitting in front row of house.

We have now come to the conclusion of this book and have led the reader carefully up the ladder, step by step, from the simple outline sketch in black and white, to the artistic creation in colors and gold. We have written these instructions in a plain every-day language that everybody can understand and have omitted all frills and fancies. That is one of the reasons for this being so eminently practical and of such great help to the beginner as well as the more experienced theatrical scene painter.

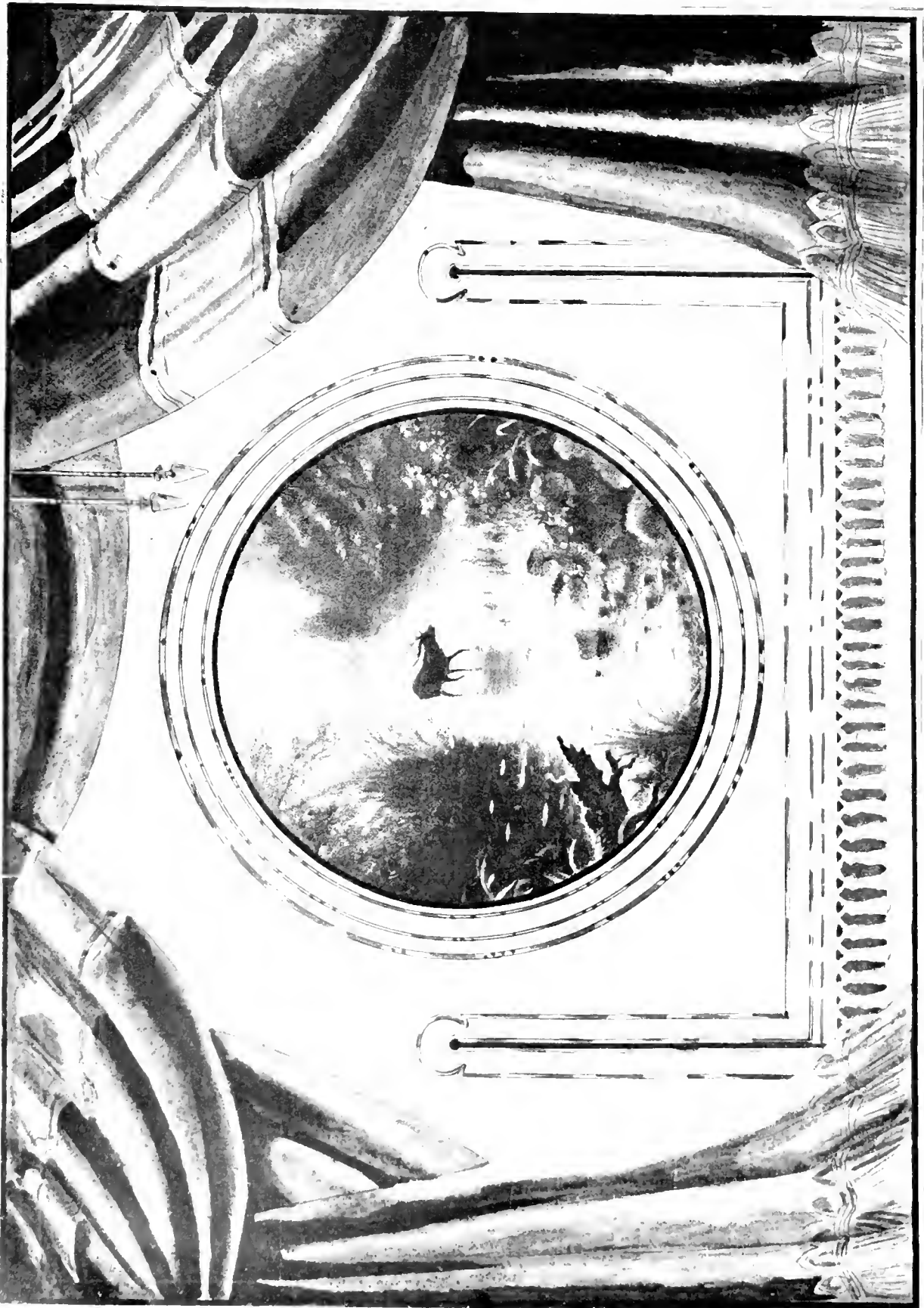
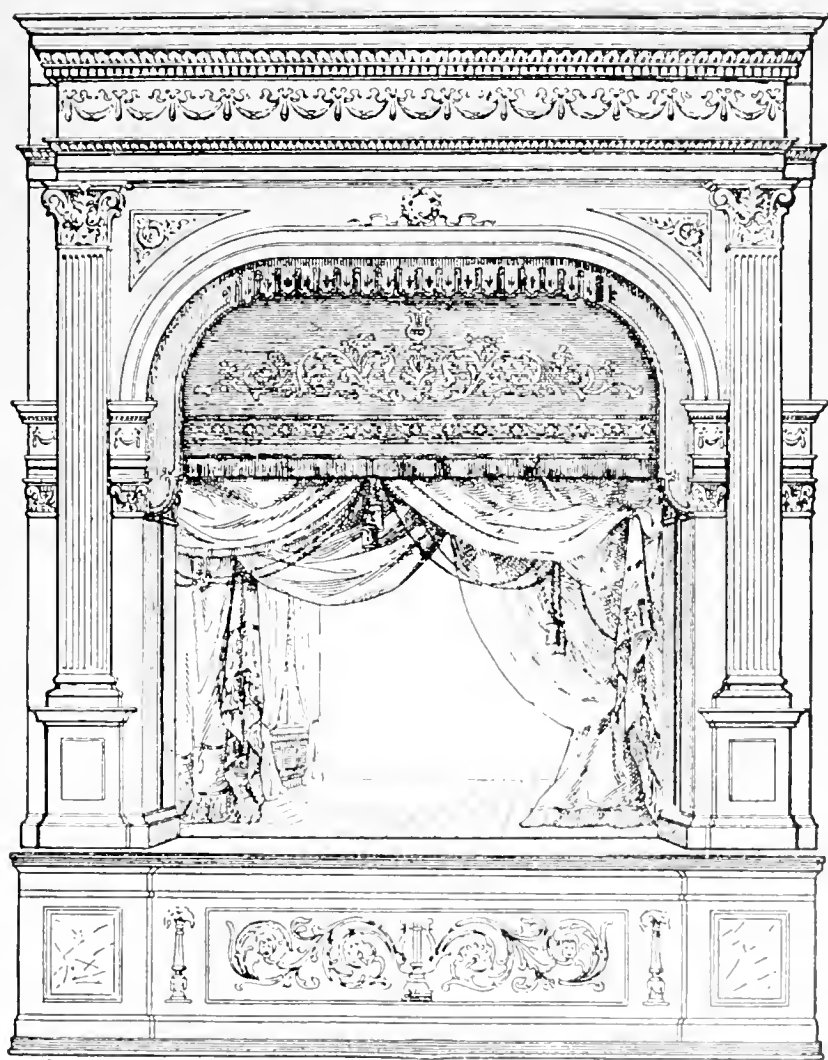
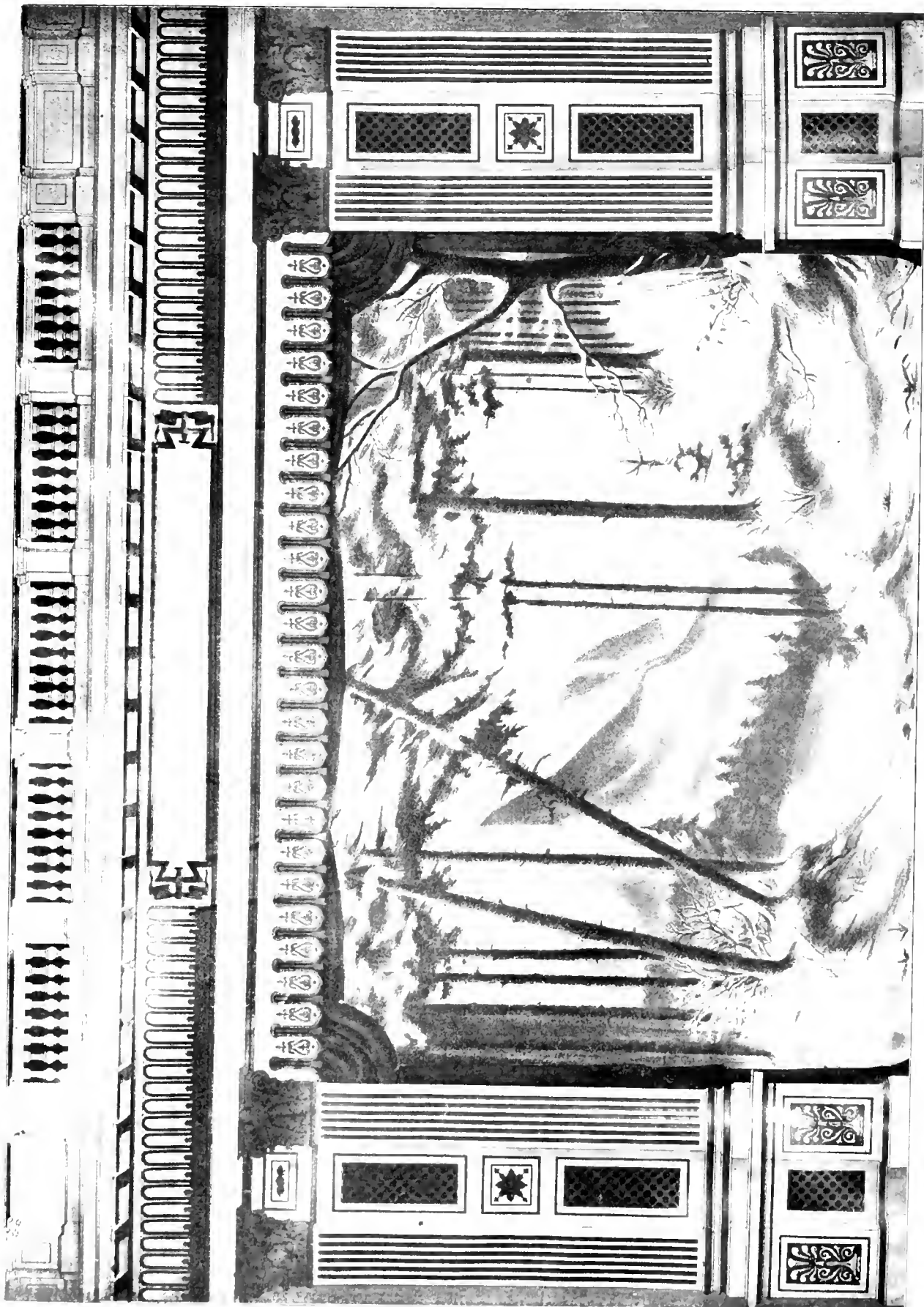
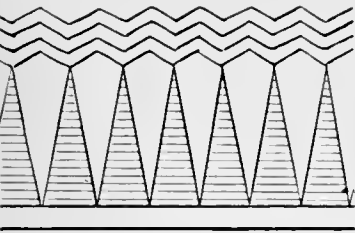


PLATE 25.





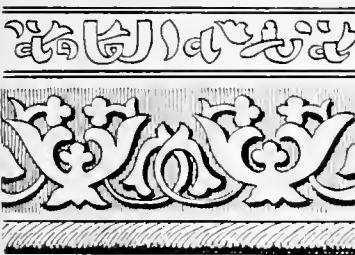
# PLATE 27.



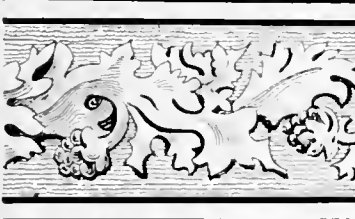
SAVAGE O.



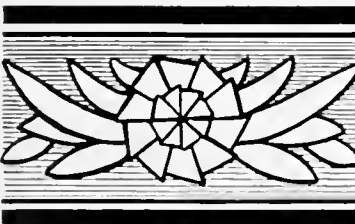
GREEK O.



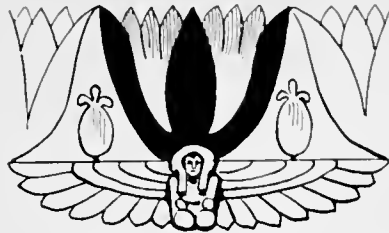
ARABIC O.



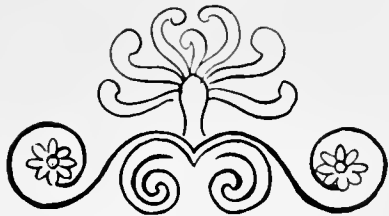
MEDIAEVAL O.



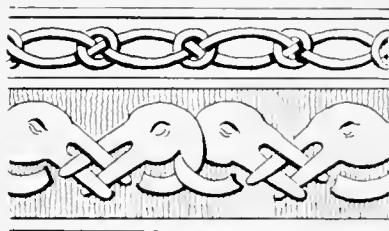
PERSIAN O.



EGYPTIAN O.



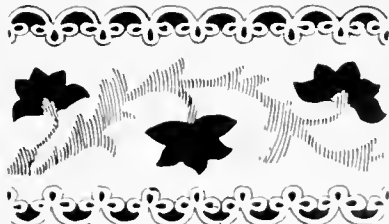
ROMAN O.



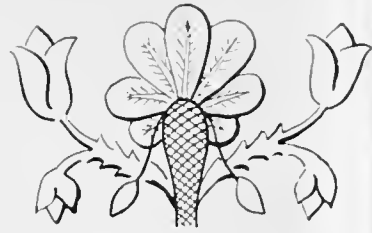
CELTIC O.



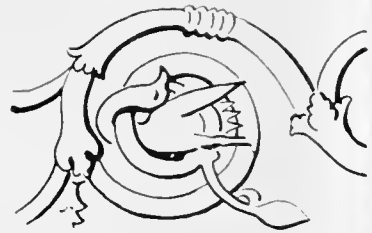
RENASCENCE O.



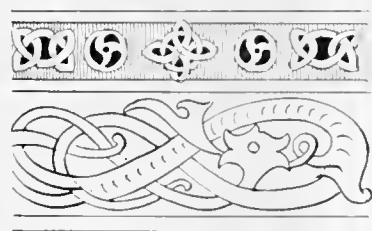
E.INDIAN O.



ASSYRIAN O.



EARLY CHRISTIAN O.



SCANDINAVIAN O.



CHINESE O.



JAPANESE O.



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